Vocational Aspirations of Upper Primary School Learners with Visual Impairments

An Exploratory Case Study in Four Provinces of Kenya

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Abstract

The purpose of the present study was to explore the vocational aspirations of upper primary school learners with visual impairments in Kenya. The study further aimed at finding out how their vocational aspirations are influenced.

An exploratory case study design was used and it comprised of two sub studies. Sub study 1 was quantitative in nature and it constituted of a survey. Questionnaires were used in the survey to collect information from the participants. Sub study 2 was qualitative in nature and it employed individual interviews.

A purposively selected sample was drawn from five schools across four provinces of Kenya. Altogether a total of 79 male and female learners with visual impairments participated in the survey. 12 learners with visual impairments were purposively selected for individual interviews. The interviewees were also drawn from the five schools across the four provinces.

Quantitative data was analysed using descriptive statistics; frequencies and percentages. Qualitative data was analysed in terms of categories and subcategories. Some variation was noted based on gender and degree of vision among the participants.

Findings of the study indicate that learners with visual impairments have relatively high educational and vocational aspirations. Many aspire for higher education and high status professional jobs. Their aspirations are influenced by individual as well as environmental factors. Individual factors include, gender, impairment and personal motivation, inter alia. Environmental factors include expectations from significant others and other external factors.

Based on the findings recommendations were made for the benefit of vocational counselling needs of the population studied. The recommendations are directed to policy makers, vocational and educational trainers, counsellors and future researchers.

Dedication

To my dear parents, Mungai and Njeri for encouraging me to spread my wings and fly in search of knowledge.

To my dear husband Githang'a wa Njuguna for your patience, understanding and support.

To my beloved children, Njuguna, Mungai and Nyambura for patiently enduring my long absence from home.

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Acronyms

EFA.....Education For All

MOEST.....Ministry of Education, Science and Technology

SPSS.....Statistical Package for Social Sciences

1. Background of the Study

'What is the greatest tragedy in life? The greatest tragedy is not death, but to live a life without a purpose.' These were the introductory remarks expressed by Sinyo (1999), who is visually impaired when presenting her paper at The Second Africa Forum Conference (Uganda), the theme being, 'Employment: A Right to Equal Opportunity.' Her touching words perhaps echo of the voices of the disabled population world-wide in relation to their increased need to be provided with opportunities for work and gainful employment.

The Standard Rules of Equalisation of Opportunities for Persons with Disabilities (1994) reflect concern that programmes and services for persons with disabilities require to be improved and that the disabled have a right to equal treatment. The implication is that they need fair opportunities that promote their full participation in their respective societies. On the other hand, the society is obliged to break any barriers, which might in any way limit their participation and equality. Michailakis (1997) credits The Standard Rules as being the first international instrument with a universal scope that clearly spelled out the rights of disabled to equal opportunities. In furtherance of maximising equal opportunities for persons with disabilities, the philosophy of inclusion has emerged in recent times. Inclusion advocates for respect of human diversity at all level of the society (Skjørten, 2001).

The concept of most educational programs has focused on fitting persons with disabilities into jobs at skilled and unskilled levels (Wamocho, 2003). Few persons with disabilities have been assisted to make their own choices or pursue higher education in order to join a broad range of career choices. In Kenya, the issue of unemployment and limited job opportunities for youth is a grave concern. Surprisingly, even the able bodied youth have often found themselves being fitted to a job training opportunity that happen to be available as opposed to what an individual really wishes to pursue in terms of career.

Literature supports the notion that the process of determining one's career is comparable to the process of choosing a mate both in complexity and importance. The choice of a career surpasses many other major life events in potential impact on a person's life (Lowman, 1991; Mostert, 2003). The schools therefore have the mammoth task of preparing students for their future adult roles. The Salamanca Statement (1994) echoes the same sentiments when it states that young people with special educational needs should be helped to make an effective transition from school to adult working life. It is therefore crucial to assist learners with visual impairment in Kenya, who may be disadvantaged on account of their sensory impairment to plan and make appropriate vocational goals.

1.1 Statement of the problem

Attitude of the general public towards persons who are visually impaired is found in everyday expressions that are used in our society such as, "the blind leading the blind", "blind rage" and even "blind ambition". These connotations suggest that blindness is something negative and involves attributes such as foolishness, ignorance and or incompetence (Conley- Jung & Olkin, 2001). Hence to overcome the challenges imposed on persons with visual impairments first by the society and secondly by their nature of disability deliberate effort must be made to prepare them adequately to make successful transition from school to the world of work.

There is a challenge to come up with appropriate means of assisting learners with disabilities to make realistic vocational goals based on their abilities and interest and not just on the society's stereotypic views. Furthermore, it should be noted that when schools fail to adequately prepare the students with disabilities for the world of work the society is in a way forced to bear the economic burden of supporting them. In promoting special education the Kenya Government notes that it is important for human capital development for it prepares those who would otherwise be dependants to be self reliant (Republic of Kenya, 2005a: xvi). On the other hand persons with disabilities may feel inadequate due to unemployment, as work, apart from serving a

financial purpose is further considered as a source of self-fulfilment and self - actualisation. As Furnham (1992: 127) aptly phrased it, “Nearly everyone chooses to work because of the explicit and implicit regards that it brings”

1.2 Purpose of the study

The purpose of this study was to explore the vocational aspirations of upper primary school learners with visual impairments. It also sought to find out factors that may influence these aspirations.

1.3 Significance of the Study

Career guidance has for a long time been based on an unplanned process, particularly in the less developed countries. However, with more people beginning to recognise the values of career counselling for intervention purposes, there is need to improve on ways of assisting individuals, more so for those with disabilities to help identify where they best belong in reference to the world of work. Wright (1997:125) stresses that formal education provides the first setting for career intervention and observes that young learners with visual impairments need a planned, systematic and expert support to improve their chance of employability.

The information derived from this study will be useful to teachers, counsellors and policy makers as it will assist them to better understand the vocational aspirations and vocational counselling needs of persons with visual impairments.

It is expected that the study will not only add to the existing literature on vocational development and choice but also stimulate further research in this area particularly for those persons who are disadvantaged or marginalized.

1.4 Research questions

The main research question was to investigate the vocational aspirations of upper primary school learners with visual impairments. More specifically it aimed at answering the following research sub questions:

1. What kinds of vocations do learners with visual impairments mostly aspire for?

2. What factors influence the vocational aspirations of learners with visual impairments?
3. How do factors identified through sub question 2 (above) influence their vocational aspirations?

1.5 Scope of the study & limitations of the study

The study was limited to exploration of vocational aspirations of learners with visual impairments and factors that may influence them. Participants were drawn from four provinces out of the eight administrative provinces of Kenya. In addition only those learners with visual impairments enrolled in classes 7 and 8 in the selected special and integrated schools formed the study sample.

As a researcher I was aware that teachers and parents of this group of learners had the possibility to shed more light into the problem under investigation. However they were not considered due to time and financial constraints. Future research may wish to include these significant others so as to get a deeper and broader perspectives of their role in development of vocational aspirations of those under their care.

1.6 Key concepts

Aspirations: One's ambitions and expectations. More on this term is discussed within text in chapter 2.

Blindness refers to inability to see ranging from a visual acuity of 6/18 to no light perception (Ministry of Education, Science and Technology (MOEST), 2006). In the present study learners who were considered blind were those who have extremely poor vision that they rely on the Braille medium for reading and writing.

Disability is the lack or restriction of ability to perform an activity in the manner within the range considered normal within a cultural setting (MOEST, 2006). In the present study it was used in reference to persons with a physical, sensory, intellectual or other impairment that may inhibit their activities.

Low vision refers to a condition where a person may have a significant visual loss existing concurrently with some usable sight (Republic of Kenya, 2003 a). In the present study it was used in reference to learners who have some useful sight and with ability to use the print medium for reading and writing.

Vocational aspiration is the job an individual wishes to engage in. More on this term is described within the text in chapter 2.

Visual impairment is a term that encompasses a broad spectrum of eye conditions and visual acuity levels (Gray, 2005b). In the present study it has been used to refer to both learners with low vision and those who are blind.

1.7 Global overview of perceptions of persons with disabilities

From ancient times persons with disabilities have received various forms of treatment from the community in which they live. Ndurumo (1993) observes that during the early ages Greeks and Romans practiced infanticide of those born with disabilities. Although the treatment of persons with disabilities in Africa may not be well documented there is evidence to suggest that they too suffered a similar fate. This early pagan attitude towards physical and psychological differences is credited with influencing the views of Western religion whereby biblical texts are noted to draw a lot of parallel between disability and evil. The implication being that disability was then viewed as a punishment from God (Avi, 1997).

Ironically despite the portrayal of disabled persons as evil in nature by religious institutions, it also propagated pity and encouraged the faithful to practice charity by taking care of their needs. Hence medical and educational institutions were traditionally established to ease the suffering of the disabled by the able bodied, which ultimately led to their loss of a sense of individuality and basic humanity (Avi, 1997: 399). This concept of viewing the disabled as objects of pity and charity quickly spread to Africa with the introduction of Christianity and the establishment of faith sponsored learning and medical

institutions. To date, almost all the special schools in Kenya are church sponsored and many incorporate the sponsor's ideology in their school curriculum and general administration of the school.

It is against this background that the human rights approach to disability arose with the concept of depicting the needs of the disabled as human rights as opposed to being viewed as privileges. The rights based approach originated from The Universal Declaration of Human Rights (1948). Subsequent events led to the United Nations Decade of Disabled Persons, 1983 – 1992, which resulted in the formulation of United Nations Standard Rules on Opportunities for Persons with Disabilities (Standard Rules). This period also experienced a formation of many pressure groups or advocates of persons with disabilities rights and succeeded in creating awareness on needs and rights of people with disabilities, in many parts of the world. Initiatives such as the International Year of the Disabled (1981), Disability Day amongst others also serve to counteract negative attitudes towards disabled persons.

Rights based approach in Kenya

The International perspective of persons with disabilities has also been translated at national level in Kenya, through legal instruments such as the recently enacted Persons with Disabilities Act (2003b). Though Kenya is to be commended for this legislation it has been observed that although the disabled rights are well articulated in the legal document, it fails to set the necessary structure that ensures the realisation of the rights stipulated. It is therefore not enough to have the law in place but Governments should go a step further and ensure that they provide adequate funding and mechanisms to support its resolution.

In commenting on the issue of disability and rights approach, Baylies (2002:730), notes that, 'Human rights may be articulated, but translating them into actual inclusion is considerably more difficult, not least in developing countries, and especially those that are highly indebted.' This statement in a way sums up the challenges evidenced in a country like Kenya, where 56% of the population lives below the poverty line. Despite the fact that the Persons with Disabilities Act (2003b) were enacted on 31st December,

2003 and promulgated into a law on 16th October, 2004, its implementation is already causing concern. It may therefore be observed that a contradiction of what is on paper and in practice may send confused signals to all concerned. On the other hand, it may also make its beneficiaries to experience frustration.

1.8 Status of education for learners with visual impairment in Kenya

Kenya is a country situated on the eastern side of the African Continent. It has an estimated population of 30 million people of which 3 million are persons with disabilities going by World Health Organization (WHO) estimates. Out of the 3 million, it is further estimated that 1.8 million people in Kenya aged between 0 to 19 years have disabilities (National Development Plan, 2002 – 2008 as cited in Republic of Kenya, 2003a). These figures give a rough estimate of children whose needs should be taken into account in the overall plan of our education system.

Learners with visual impairments are but just one of the categories of learners with disabilities who are mostly enrolled in special schools or integrated units. Available statistics indicate that as at 2003 there were 26, 885 learners with disabilities enrolled in special schools and units out of an estimated figure of 1.8 million. Going by this figure, it is evident that a shocking 1.75 million children may not be receiving any special needs education services (Republic of Kenya, 2003a: 20). By implication, Kenya has to seriously expand its provision of education services to all children if Education For All (EFA) is to be achieved by 2015 as documented in various government papers. Unfortunately there are no available statistics on each category of learners with disabilities by gender, age or type and degree of impairment, which may affect delivery and quality of services for the disabled population in Kenya.

The first school for learners with visual impairments was established in 1946 in Thika and it started as a rehabilitation centre for victims of the Second World War (Republic of Kenya, 2003a:8). Later on it grew to become the current day Salvation Army special primary and the only special secondary school for the Blind. In the mid 1970's,

integration was introduced in response to global trends of that time (Republic of Kenya, 2001). Since then the country has continued to practice segregated and integrated education to learners with disabilities. Inclusion has not taken root in Kenya as yet and currently no such policy is in existence. However, it is made reference to in various official documents (Republic of Kenya 2003a, 2005a & 2005 b) an indicator, that it may be an option in the near future.

In January 2003, Free Primary Education was introduced as resolved in Education For All (EFA) conferences (Jomtien – Thailand, 1990; Dakar – Senegal, 2000). In doing so the government meets the cost of tuition fees, teacher's salaries, teaching and learning materials. The major drawback is that cost of boarding school for all children, including those with disabilities has to be met by parents. In addition, parents of disabled children have to meet the cost of assistive devices, medical services and other related requirements, hence placing a heavy financial burden on them (Republic of Kenya, 2003 a: 27). It is such costs that have significantly contributed to poor access to education for learners with disabilities as many parents are unable to raise boarding fees not to mention other basic necessary requirements to meet the needs of their children. It has also contributed to learners' finishing school late as sometimes they drop out of school for long spells only to rejoin when parents succeed in raising the required amount.

The current structure of education comprises of 8 years of primary education, 4 years of secondary education and 4 years of university education commonly referred to as the 8 - 4 - 4 (see Appendix11). All schools in Kenya follow a centralized curriculum which is developed by the Kenya Institute of Education. Students sit for two major national examinations, at the end of primary and secondary education respectively. The national exams are terminal, summative and their purpose is mainly selection, placement and certification into the next level of education (Republic of Kenya, 2003 a: 58). Although, the examinations for learners with visual impairments are adapted, at secondary school such learners are restricted to one science subject, which is biology, while their sighted peers are allowed to do more than two science subjects. This may

disadvantage the learners with visual impairments in relation to career choices and admission to competitive places in institutions of higher learning.

On completion of secondary school those who qualify for university admission proceed for higher education. A few are also absorbed in public teacher training institutions based on merit. However those who do not meet these requirements generally join public technical and vocational institutions in various fields that they may wish to pursue. Although learners who are able to learn comfortably in print may join these colleges the same may not be possible for those who use Braille as their medium of communication (Republic of Kenya, 1999). This then leaves many of them with the option of joining vocational training centres that are tailored for them. The disadvantage they face is that the type of training offered in these institutions is basically traditional in outlook. It includes imparting of skills such as knitting, tailoring, leatherworks, and carpentry among others. These kinds of skills may have served well in the past but may fail to meet the global trends of our times. As observed by Ochs & Roessler (2001) learners with disabilities must be fully equipped with skills, self confidence and positive career related intentions that enable other students to succeed.

1.9 Organisation of the thesis

This study is presented in six chapters.

Chapter 1 gives the background of the study. The problem is defined leading to formulation of research questions and definition of key concepts. A brief description on literature related to persons with disabilities is provided. A brief look at Kenyan educational and training system for learners with visual impairment concludes the chapter.

Chapter 2 focuses on the theoretical framework guiding the study and also provides a review of previous studies. Additional information on some key concepts is provided within the text too.

Chapter 3 provides the details of method employed in the present study. It addresses both quantitative and qualitative aspects of the study.

Chapter 4 presents data and analysis of quantitative aspects of the study. In addition comments are provided on some aspects of the results.

Chapter 5 presents data and analysis of qualitative aspects of the study. In addition comments on some aspects of the findings are also made.

Chapter 6 discusses some of the major findings of the study in view of the previous studies and theoretical framework.

In summing up, the present study has not dwelt at length on definitions of visual impairment, other than the operational definition provided in section 1.6. This is because the focus was on the effects of visual impairments in relation to vocational aspiration. Neither were causes of visual impairments explored in the study.

Although, the present study was planned a year and a half ago, it should be noted that efforts were deliberately made to thin this study in the presentation, due to newly introduced regulations on maximum page requirements.

2. Theoretical framework and review of literature

There are two sections in this chapter. The first section reviews the bioecological theory as postulated by Bronfenbrenner (1979, 2005). The second section reviews previous studies and constitutes the main part of the theory chapter.

2.1 Theoretical Framework

There are various theories on vocational development with each trying to explain why and how such development occurs. Many of these theories are based on the model of 'matching men and jobs' a notion that has its roots in Parson's (1909) theory of vocational development. Their applicability, particularly to people with special needs is debatable on account of their contextual experiences among other factors. However, Bronfenbrenner's theory (1979, 2005) takes into account the environment in which the child develops, hence its relevance to this study.

2.1.1 Bioecological theory of human development

An important feature of Bronfenbrenner's theory (1979, 2005) is its emphasis on the dynamic interaction of the individual with his or her environment. The experiences of an individual child are given prominence in the theory. Bronfenbrenner (2005) posits that both objective and subjective experiences combine to form the driving course of human development. In other words, the environment within which the child develops has influential forces upon it and vice versa.

Four layers of environmental systems that influence a child's development were identified by Bronfenbrenner (1979, 2005). They are the micro-, meso-, exo- and macrosystems. These four systems or layers are dependent on each other and failure at any one layer has an effect on another and consequently on the developing child. The bioecological model stresses that all children including those with disabilities require similar things in order to develop desired knowledge, attitude and skills.

Bronfenbrenner & Evans (2000) posit that all children should be allowed to participate regularly in progressively more complex activities. They recommend that this should preferably be with one or two committed persons to the child's developmental welfare. As observed by Skar & Tam, (2001) failure to develop multiplex roles during childhood and adolescence, due to limited opportunities and contacts with others may result in a deficiency in the developing person. The main challenge faced by learners with visual impairments as noted by Gray (2005 b) is that they learn differently, for in most cases they cannot rely on their vision to provide information

The Microsystems

This is considered as the innermost layer of the four systems and is the immediate environment in which the child operates. Individuals that have a direct contact with the child, include parents, extended family members, peers, teachers and others in the school setting. From the onset, they are expected to play a supportive role of guiding the developing child through formal and informal experiences. On the other hand, the child is not a passive individual and is supposed to be active in construction of learning experiences. Bronfenbrenner (2005: 147) defines microsystem as:

> ' a pattern of activities, roles and interpersonal relations experienced by the developing person in a given face to face setting with particular physical and material features and containing other persons with distinctive characteristics of temperament, personality and systems of beliefs.'

However, the presence of a disability during early years of development may limit learning experiences. Johnsen (2001) observes that a sensory impairment that results in decrease or loss of vision is a barrier to input of external information. Further complexities may also arise at microsystem level if those who interact with the child are influenced by the visual impairment itself. Kazak (1986) posits that while knowledge exists on stages of grieving after the birth of child with a disability, there may be less available information about ongoing family processes and successful functioning. Hence to overcome challenges imposed by visual limitation, those at microsystem setting may have more demands made upon them if the child with a visual impairment is to develop appropriately. Parents being the basis of a child's

development may also require relevant support if they are to play their role effectively in the development of the child with a visual impairment.

The Mesosystem

According to Bronfenbrenner (2005: 147), the mesosystem comprises of the linkages and processes taking place between two or more settings, containing the developing person. The focus is on how interactions at different settings can influence the developing child. For example, the relationship between parents' experiences and teachers' experiences may influence the developing child. Thus a child's learning experiences while at school may be influenced by how parents and teachers react to each other, in addition to the school environment. Rye (2001) noted that the parent teacher relationship is so important that it calls for close collaboration between the parties. Similarly the relationship between parents and community members also influences the developing child. For example if parents are isolated by community members due to their child with a disability, they may in turn convey negative feelings to this child consequently affecting its development.

The Exosystem

This involves environments that influence the child in an indirect manner. That is, they affect the child through interaction with individuals in its microsystem. Kazak (1986) postulates, that event at different settings may reverberate to affect the child. For example the relationship between parents and their working environment, which may include income level and other job demands, may affect the developing child. Similarly decisions that may be made by teachers' employer pertaining to their professional development, work load and other related matters also affect the child's quality of life and learning experiences while at school.

The Macrosystem

It is viewed as the outermost layer of the four systems and it embraces the micro-. meso- and exosystems. It includes the broader culture such as customs and values of a given society. Bronfenbrenner (2005: 147) defined it as:

> 'Characteristic of a given culture, subculture, or other broader social context, with particular reference to the developmentally instigated belief systems, resources, harzards, lifestyles, opportunity structures, life course options and patterns of social interchanges that are embedded in each of these systems.'

In this regard, laws and policies, economic situation of a given country operate at this level. For example, a country may pass laws giving favourable employment considerations to persons with disabilities; however, if this is not facilitated by practical economic structures the child with a disability is ultimately affected. In addition attitude towards persons with disabilities which in most cases are enshrined in a peoples culture are also included at macro level system.

In summing up it may be observed that the bioecological model takes note of the physical environment and its connection to the developing child at individual, interpersonal, organisational and community level. The overall emphasis being that behaviour and development of any individual is best understood if viewed from the lenses of various forms of environmental systems that contain the person.

2.2 Related studies

This section highlights previous studies on aspirations of disabled and non disabled youth and factors[1] that may influence such aspirations.

2.2.1 Aspirations of youth

The decision to explore the vocational aspirations of upper primary school learners in classes 7 & 8 (Two final years of primary education) with visual impairment is an effort to explore the conceptions of type of work they wish or expect to do at a key stage of their development. As noted by Snell & Brown (2000:599), for individuals with disabilities this is an important period for learning to take responsibility, acquiring appropriate social and communication skills, coupled with an understanding of jobs or careers. In Kenya, this is significant as many children who complete primary education may never get the opportunity to continue to secondary education due to lack of funds

[1] Concerning media as a factor, it is commented upon as a possible influence in chapter 4 section 4.1.1 and chapter 6.

or other factors. The Republic of Kenya (2005b) observes that out of 600,000 yearly graduates from primary level education only 350,000 or 55% proceed to secondary education. However, since primary education is free (except for boarding fees), it is important that the right skills are imparted to the learners in their elementary years as it may serve to prepare them for the world of work.

Crites (1969) defined aspirations as an individual's wants and wishes irrespective of limitations imposed by reality. Thus it may be observed an individual's aspiration in relation to future work is based on what the person considers as an ideal job for him or her. While commenting on the same, Burchardt (2004: 181) noted aspirations are considered to be a critical ingredient for achievement in education and occupational outcomes later in life. Furthermore high aspirations can provide for the necessary motivation to overcome difficulties faced on the way. The term vocational on the other hand, refers to the responses an individual makes in choosing and adapting to an occupation (Savickus, 2002:150). Thus vocational aspiration in the context of the present study refers to the job or occupation that an individual wishes to engage in after formal education. The term vocation has been favoured for use in the present study because it kind of embraces behaviour as a dynamic process. Hence an individual's activities within the environment may help him or her to project future goals in relation to education and vocation.

Burchardt (2004) set out to examine the educational and occupational aspirations of young disabled people aged 18 to 19 and compared them to their non disabled peers. Her findings confirm that youth with disabilities have similar aspirations to their non disabled counterparts and they too would like to further their education and also find worthwhile occupation. However, the study observed, that for individuals with disabilities, there was evidence to suggest that their education period was likely to last longer and they also envisaged obstacles in the world of work. Other factors that were identified as having an influence on the aspirations of youth with disabilities included, the impairment itself, academic achievement, parental expectations, school environment, teacher expectations, peer group and the local context. The Republic of

Kenya (2005a) concurs with findings by Burchardt (2004) concerning delay in completing school. It notes that in Kenya, learners with special needs in most cases enrol at school when they are 8 years of age and above. Consequently many become adults before they complete their educational programs.

A follow up study of teenage aspirations was conducted in Great Britain by Schoon & Parsons (2002) of over 17,000 individuals born twelve years apart (in 1958 & 1970). They measured their educational and occupational aspirations, educational achievement and family background factors at age sixteen and then correlated it with occupational attainment at adulthood at ages 26 and 33 for each cohort respectively. Their results confirmed that young people's aspirations have an influence on their educational attainment, career choices and future earnings. In addition their results indicated that young people with high aspirations are more likely than their less ambitious peers to enter a professional and managerial career.

2.2.2 Effects of a visual impairment

The inability to see well seriously interferes with one's ability to observe and imitate actions of others which is instrumental to learning. The limitations imposed by blindness as summarised by Lowenfeld (1981: 137); include limitations in range and variety of experiences, ability to get about and control of the environment and the self in relation to it. As a result of these limitations special care should be taken to bridge the gaps in the cognitive functioning of individuals with blindness or limited vision. To overcome challenges of mobility, special training in orientation and mobility is considered necessary. However, Gustafson - Pearce, Billet & Cecelja (2005) note that certain factors in the physical environment may still continue to trigger fear and uncertainty among pedestrians with visual impairments. Failure to positively address challenges imposed by blindness may result in limited early exploration, opportunities to engage in vocational exploration and few chances of successful experiences in decision making as observed by Peterson & Gonzalez (2000). The situation for some individuals may further be compounded by related health factors that necessitate them

to make frequent visits to hospitals thus missing out on programmed instruction at school.

A study by Gray (2005b: 188) concluded that the relationship between visual impairment and development is complex and maybe affected by a variety of factors. Some of the factors identified include, degree of visual acuity, age at diagnosis, preventive measures employed, parental support, child's intellectual ability and personality. This study further lends support to influence of individual and the environmental characteristics.

2.2.3 Gender related factors

Research literature documents the existence of stereotypic views on occupational roles with some being viewed as appropriate for males while others as appropriate for females (Wamocho 2003; Abubakar 2002). According to Weisner & Wilson - Mitchell as cited in Phillips & Imhoff (1997), gender roles are formed early and are evident in children's stories, activities and attributions. Stereotypes in relation to career choices have partly been attributed to socialisation process and cultural influences that tend to reinforce traditional sex roles.

2.2.4 Family and parental expectations

Expectations are beliefs about what may happen in future and they are rooted in an individual's beliefs, personal experience and through acquisition of social information (Russell, 2003: 148). The immediate family of the learner with visual impairment is perceived as a microsystem of central importance. When parents learn of their child's disability, any expectations they may have had of their child is shattered (Russell, 2005:118) and they begin a process of continuous lifelong adjustments (Pierangelo & Giulani, 2004:47). This may perhaps be attributed to Scholl's (1985) observation that parents worry about the child's ability to reproduce and to hold gainful employment.

In the African context, children are the ones who take care of their aged parents and the presence of a disability in a child may quickly destroy this dream. Furthermore the cost of raising such a child may become an additional complication. Studies on

parental support for their disabled children have yielded conflicting findings. Kef, Hox & Habekothe (2000) in their study of social networks of adolescents with visual impairments found that Dutch adolescents with visual impairments perceived less support from their parents than their non impaired adolescent counterparts. However, a study of highly achieving women with physical and sensory impairments (Noonan, Gallor, Hensier - McGinnis, Fassinger, Wang & Goodman, 2004) revealed that their parents were supportive and encouraging, with some reporting more support from their mothers than their fathers.

Perhaps the importance of parental support is well documented and exemplified by Nemeth (1996), who was born blind but grew to become a mathematics lecturer at university level. He is famous for developing the mathematics notation code for Braille users. He narrates how his father while walking with him would always provide verbal information on the physical environment, hence enriching his learning experiences. His mother on the other hand always involved him in shopping errands. It is from these activities that his memory sharpened and so too his mental arithmetic; giving birth to a passion for mathematics. Unfortunately his counsellors persuaded him to study psychology, on account of his blindness. However years later and through personal motivation and determination he finally achieved his dream of teaching mathematics.

2.2.5 Teacher expectations and school environment

There is evidence to suggest that schools play an important role of not only educating learners in the academic arena, but also providing relevant information in terms of operating in the wider environment. As observed by Pierangelo & Giulani (2004) when learning is made interesting for learners with visual impairments, it motivates them to explore their environment, which ordinarily they may have little interest. This is a pointer to the importance of motivation in learning and goal achievement.
Motivation may be intrinsic or extrinsic and Eccles & Wigfield (2002) postulate that when individuals engage in an activity out of interest, they may be said to be intrinsically motivated. On the other hand, those that expect some form of rewards for their activities are said to be extrinsically motivated. They further observe that to

understand students' motivation, their contextual factors must be taken into account. Shah (2005: 112) confirms that policy and practice, particularly within the school arena, can either support young peoples' subjective realities or constrain them. For learners with visual impairments in residential programmes it is important for the schools to take stock of the kind of vocational information and experiences that they are providing to their learners.

According to Burchardt (2004: 182), the impact of the school environment and of teachers on young disabled persons appears to be stronger than for non disabled. Gillies, Knight & Baglioni (1998) found that teachers and employers seem to believe that the range of occupations suitable for the people who are blind or vision impaired is limited. Teachers who may only focus on what their learners are unable to do may affect the learners self concept and the individual may grow up lacking self belief in his or her own abilities, which undoubtedly would have a negative effect on one's aspiration level. This was also noted by Safwat (2000), who observed that low teacher expectation does affect a students' self attitude, hence interfering with learning achievement.

Mixed evidence on school environment has been provided by studies of disabled learners in special schools and those in regular school. Shah, Trevors & Arnold (2004) found that disabled high school achievers who attended special schools believed that the role models in such institutions not only inspired them in the academic arena but also on how to overcome disabling barriers. The participants further stressed that special schools helped them form a sense of self identity. A study by Gray (2005 b) also found that young people with visual impairments in Ireland indicated a preference for special schools.

Although there has been a strong movement towards inclusion Kef et. al., (2000) observes it has not succeeded in providing adolescents with visual impairments with personal networks of similar sizes to those of their able bodied peers. This lack of personal networks may possibly explain their inclination to special schools. However Mrug & Wallender (2002) in their study of young people with physical disabilities

found that those who had a positive self concept were those who lived with their families and attended regular schools. In addition those who had the most negative self concept were those attending special boarding school. Contrary results were found by Murugami (2002), who studied internal orientation and self – concept of learners with sensory and physical disabilities in special residential schools. Her participants reported a positive self concept irrespective of their home backgrounds.

Other studies have pointed out the importance of academic achievement in relation to successful future careers (Shah, Trevors & Arnold, 2004). This is mainly because those who excel in examinations are also given opportunities for further education and training. (Wong, 2004) found that students with visual impairments in Britain reported that further educational qualifications would enhance their chances of gaining employment. In the Kenyan situation where the education system is exam oriented and pupils have to compete for available slots in secondary school, some may fail to keep pace. Although there are 6 special primary schools for learners with visual impairments and several units at primary school level, there is only one secondary special school for the same category of learners. Admission to the only special secondary school is pegged to bed space, merit (academic) and ability to pay fees. This then means that the pupils have to stiffly compete for few spaces, hence for some their dream for higher education may never be realised

2.2.6 Vocational training institutions for learners with visual impairments

If learners with visual impairments are to succeed educationally and vocationally, they must be equipped with skills that enable other learners to succeed (Ochs & Roessler, 2001). Although the primary and secondary school system in Kenya is structured to accommodate learning needs of those with visual impairments, the same is not the case for technical and vocational public training institutions. Songe (2004) laments that the curriculum designed for such institutions are insensitive to the needs of learners with visual impairments. With regard to the same, the Republic of Kenya (1999) notes that

access to public training institutions in technical and vocational fields is almost non-existent for persons with visual impairments. Thus learners who fail to qualify for university education or teacher training colleges, especially those who are blind as discussed in chapter one, are usually faced with a high likelihood of joining segregated vocational centres tailored for persons with visual impairments.

Snell & Brown (2000) emphasize that students dreams about work should never be limited to existing vocational training institutions which in most cases serve as day-care centres or sheltered workshops. Further evidence for disadvantages of vocational training institutions is provided by Gill (2005), who notes that they are limiting and exploitative in nature.

In summing up the information provided in this chapter in view of the theory and previous studies will be applied in the discussion of findings in chapter 6. Although various factors have been identified and noted as influential in terms of aspirations, Esbroeck, Tibos & Ziman (2005) caution that these factors have the possibility of being stimulating as well as limiting.

3. Method

This chapter is divided into two sections; the first section addresses the quantitative research approach (survey), which is referred to as Sub study1. The second section looks at the qualitative research approach aspects (interview) and is referred to as Sub study 2. The study explored the vocational aspirations of learners with visual impairments in the context of two ordinary schools, practising integration and three special residential schools for learners with visual impairments at primary school level. The research design is described in relation to the use of mixed methods within a qualitative case study design as presented below. Subsequent sections discuss the study population, sampling technique, instrument, pre-test and pilot test, data collection procedure & process, including reliability & validity in view of Sub study1. This is followed by details of the same factors in relation to Sub study 2. A description of ethical considerations undertaken for the present study concludes this chapter.

3.1 Research design

The main research question was to investigate the vocational aspirations of upper primary school learners with visual impairments. More specifically it aimed at answering the following research sub questions:

1. What kinds of vocations do learners with visual impairments mostly aspire for?
2. What are the factors that influence the vocational aspirations of learners with visual impairments?
3. How do factors identified through sub question 2 (above) influence their vocational aspirations?

This study used an exploratory case study design with the aim of gaining a deeper understanding of the phenomena under investigation. However, it also included a survey which was quantitative in nature under Sub study1. Yin (2003b:91) postulates that a survey can be designed as part of a case study and the quantitative data produced can then serve as part of case study evidence. Robson (2002:89) defines a case study as

the development of detailed, intensive knowledge about a single ‘case’ or of a small number of related ‘cases’. In a case study, multiple sources of data collection are recommended so as to allow the researcher to study the phenomena under investigation in greater depth. In providing evidence for the same Gall, Gall & Borg (2003), observe that using multiple methods of data collection about a phenomenon can enhance the validity of case study findings. They further postulate that since data collection is emergent in case studies research, data collected at one point in time is used to determine subsequent data collection activities.

In connection to the aforementioned, it should therefore be noted that only part of the results from survey that were related to follow up interviews were given prominence and are presented in chapter 4. As earlier indicated in chapter 1 attempts were also made to thin the study due to newly introduced regulations on maximum page requirements. Mixed methods that included both quantitative and qualitative features in the design, data collection and analysis were utilised in this study. Secondly the formulated research questions had potential for mixed method analysis and required the quantitative and qualitative analysis to respond to them.

Specifically the researcher used a sequential mixed methods design. According to Onwuegbuzie & Teddlie (2003), this is the design in which one type of data provides a basis for the collection of another type of data. In such a study too, the final inferences are based on the results of the two types of data. Robson (2002:370) postulates that multiple methods help in addressing different but complementary questions within a study enriching the drawing of conclusions about the problem in the study, a notion that is supported by Mertens & McLaughlin (2004:113).

The present study as earlier mentioned consists of two sub studies. Sub study 1 constituted of a survey that explored in greater breadth, the vocational aspirations of learners with visual impairments. Sub study 2, employed individual interviews and focused in greater depth on how these learners with visual impairments have come to believe that these are the appropriate vocations for them. This is in line with

recommendations by Creswell, Clark, Guttmann & Hanson (2003:217) who note that when quantitative data precedes qualitative data the purpose is, to explore with a large sample and to test variables before commencing on a deeper exploration using a few cases. By using the two different approaches in a single study, the researcher is likely to make better inferences or even more accurate inferences of the phenomena under investigation (Teddlie &Tashakkori, 2003: 16).

3.2 Sub study 1: Survey

The survey strategy in research is where questionnaires and or interviews are used to collect data about characteristics, knowledge or opinions in a population or sample population (Gall et al., 2003). The survey was intended to reach upper primary school learners with visual impairments enrolled in integrated and special schools in Kenya. The survey used a pre determined instrument that served three purposes; firstly, it was used to answer research questions that necessitated this kind of data, secondly, it identified and explored pertinent themes for further exploration in Sub study 2. Thirdly, it helped to set criteria for identification of 'information rich cases' for follow up in the interviews. Surveys are credited for allowing a collection of data from a larger number of people and a rapid turnaround in data collection (Creswell 2003:154). However the data may be limited in the sense that it largely relies on individuals self reports which in some instances may be biased.

3.2.1 Population and sampling

The study area: Kenya is administratively divided into eight provinces. Four provinces were selected, namely, Coast, Eastern, Central and Nairobi for purposes of this study. This selection was based upon accessibility and my knowledge as a special needs education teacher trainer on types of school programmes for learners with visual impairments in existence. In addition there was a possibility of getting variation on perceptions of participants on the problem under investigation.

The target population: The target population in the present study were male and female learners with visual impairments enrolled in classes 7 & 8 in the selected schools. Two

categories of learners with visual impairments were drawn into the study, that is, those who are blind and those with low vision.

3.2.2 Sampling

Purposive sampling was used to identify the four provinces of Kenya and the schools. According to Robson (2002:265), the principle selection in purposive sampling is the researcher's judgement as to the typicality. This is supported by Gall et al., (2003:165) who postulate that the goal of purposive sampling is to select cases that are likely to be information rich. The sampling involved the following steps:

Step 1: Sampling of regions. Purposive sampling was utilised to select the four provinces out of eight administrative provinces of Kenya. The criteria being that the provinces though separated by vast distance technically neighbour each other. They also have established transport and communication system and are hosts to schools which I considered to be information rich.

Step 2: **Sampling of special schools**. Purposive sampling was again used to select the 3 special residential schools. The criteria being that all the selected schools have been in operation for several years are well established administratively and enjoy equal support from the MOEST. Most of their teachers are trained in special needs education and are employees of The Teachers Service Commission, a body responsible for employing all teachers in public primary, secondary and tertiary institutions in Kenya.

Step 3: Sampling of integrated schools. Purposive sampling was again used in this regard. The same general criteria mentioned in step two also applied to the two integrated schools. In addition the following information is provided about the integrated schools selected. Although the two learners were drawn from different schools, their programmes are coordinated by the same office. The schools programmes for learner with visual impairments are coordinated by the same body which is charged with the responsibility of coordinating all services for programmes in the capital city. The purpose of using integrated school was to allow for variation in experiences. Qualitative research is very much interested in identifying what is unique as opposed to what is common among people. In line with this notion, Creswell (1998:

120), recommends the selection of unusual cases in collective case studies to allow maximum variation and observes that the diversity of participants helps to display multiple perspectives about the cases under investigation.

Step 4: Sampling of respondents for survey. Male and female learners with visual impairments enrolled in classes 7 & 8 in the five selected schools participated in the survey. In settling for those in the last two years of their primary education, it was considered that they were at an opportune stage of giving thought to future possibilities in relation to further education and or vocational plans. Sampling of the participants was done by gender and degree of vision. The criteria being that only those without additional impairments were included in the study. This means that the whole population apart from those with additional impairments participated in the study. Altogether 79 respondents from the four provinces of Kenya were drawn into the study (see Appendix 7 table 1).

3.3 Instrument

Befring (2004) posits that the three main strategies of empirical data collection are questionnaires, interview and observation. In this study questionnaires were used to collect information on vocational aspirations of learners with visual impairments. Two instruments were developed (see Appendix 3& 4) with advisors guidance based on experience and knowledge of Kenya's educational system, previous studies in home country and abroad and Bronfenbrenner's (1979, 2005), theory of human development. Both instruments were transcribed from print to Braille for use by respondents who were blind. This was done by assistance from a qualified person working at a special needs education training institution.

Vocational Aspiration 1: It was used to collect participants' demographic data, favourite academic subjects & educational aspirations, activities learners with visual impairment engage in when at home and choice of vocation they aspired for. In addition participants were requested to indicate their willingness for further participation in the interview study as described in section 3.4 of this chapter.

Vocational Aspiration 2: It was used to measure the participants drive towards attainment of vocational goals. The rating occurred on a four- point Likert based scale whose responses were rated based on strongly agree, agree, disagree and strongly disagree. The distracter 'not sure' which allows an individual to show indecision on an item was not included as is commonly done in a five-point Likert scale. This was done so as to elicit an appropriate positive or negative response on a specified item and basically to avoid neutrality. Out of the 25 items 11 were reverse scored. Higher scores reflected a stronger aspiration towards vocational goals while lower scores reflected a less inclination towards achievement of vocational goals. Three items on this scale were borrowed from O'Brien (1996) Career Aspiration Scale. These three items are:

'I hope to become a leader in my future chosen career.'

'Being a leader in my future career is not important to me.'

'Once I finish my primary school education, I see no need to continue to secondary school.'

3.3.1 Pretesting

According to Befring (2004), it is necessary to pre-test all the questionnaires and procedures that are to be used in the research process. Similar sentiments are echoed by Gall, et al., (2003). Yin (2003b:79), notes that the pre-test provides the researcher the occasion for a formal "dress rehearsal" in which the data collection plan is used as the final plan as faithfully as possible.

The questionnaires for this study were pre-tested using colleagues in the department of special needs education and a university student with a visual impairment while in Oslo. A further pre test was carried out in the home country using a work colleague (female) who is visually impaired and a primary school teacher (male) who is also visually impaired.

3.3.2 Pilot Testing

According to Robson (2002:97), a pilot study is a mini – version of the study and should be conducted before the researcher engages in the main study. Creswell (2003: 158) observes that pilot testing helps to establish content validity of the instrument and improves questions, format and the scales. A pilot study following closely the

procedures planned for sub study one was carried out. It helped in further improvement of the instrument and data collection technique. Braille questionnaires were then prepared afresh to reflect the new changes.

Lessons learned from Pilot study

The pilot study was useful as it helped refine the instrument, especially language to suit the participants' level of understanding. Apart from language factors, a scoring key was included on each page of the Likert based scale. It also helped in planning the data collection process and procedure for the actual study and subsequent data analysis.

3.4 Data collection procedure and process

Data were collected between September and October, 2006. Learners who are blind used questionnaires prepared in Braille while those with low vision were served with print versions of the same. Respondents completed the questionnaire as researcher and a contact teacher administered them in the case of residential institutions. However in the integrated setting it was only the researcher who administered the questionnaires. Items in the questionnaire were read one at a time and sufficient time was given to respondents for entering their responses. This technique was applied so as to give help those that required further clarification and or assistance.

Data were collected in two sessions with each lasting about one and a half hours due to time taken to distribute and collect the questionnaires. A twenty minutes break was granted between the sessions so as to avoid fatigue on the part of the respondents. The respondents were assigned serial numbers that were code linked to their names. The serial number assigned remained the same for both sessions and it facilitated the pairing of vocational aspiration 1 & 2. This was found necessary as I also needed to identify the respondent correctly for a follow up in Sub study 2, whereby individual interviews were conducted.

The data collection process went on well except that in one of the schools, due to unforeseen circumstances a respondent was unable to participate as she had to suddenly appear before a disciplinary committee. Another fell ill after the first session

and had to be taken to hospital, hence did not attempt vocational aspiration 2. In total 84 questionnaires were administered and collected. However, 5 were discarded for various reasons. One of the respondents had to appear before a disciplinary board and had to leave when we were just about to start the first session. Out of the remaining 4 questionnaires 2 were incomplete and unsuitable for use. Two other respondents had poor command of Braille and mixed Kiswahili and English Braille codes hence making their work illegible. Therefore out of the 84 questionnaires only 79 were used for analysis of survey results.

The Braille copies of the questionnaire were transcribed by researcher with assistance from a qualified person who was recruited to crosscheck the transcriptions. Information gathered from the questionnaire was then coded and entered into SPSS (Statistical Package for Social Sciences) version 10 statistical packages. Categorisation of themes was done for the open ended question and this facilitated their entry into the SPSS. A frequency analysis was done for all questionnaire items of all the respondents. This process was undertaken with guidance and support from my local advisor, a senior lecturer at a Kenyan state university, in the department of special needs education. The preliminary analysis of data from Sub study 1led to Sub study 2 as described in this section (also sections 3.1 & 3.2).

3.4.1 Additional information

School record: The researcher also collected information from school personal files of each learner. This was done to facilitate the cross checking of information, especially demographic data provided in the questionnaire responses. The information extracted from the file was carefully noted.

3.5 Reliability and validity

In the development of the instrument, its administration and analysis of results reliability and validity were given important considerations and more so in view of the fact that the instrument used was specifically developed for this study. Reliability as observed by Befring (2004:155), has to do with whether measurement error has been

reduced to a minimum and to what extent the measurement results are stable and precise. In other words the instrument used in a study is expected to yield an accurate measure that reflects a reliable picture of the problem under investigation.
Validity on the other hand, refers to whether a meaningful and useful inference can be drawn from the scores derived from the instrument (Creswell, 2003:157). The focus being on whether the instrument used in the study actually measured what it claimed to measure. In the section that follows a discussion on steps taken to try and secure both the reliability and validity of the self developed instrument are highlighted.

Factors that were considered to enhance reliability and validity

Theoretical inspiration: As mentioned earlier, the instrument (questionnaire) was self developed, hence it was necessary to bear in mind its purpose and intended use in the research study. This was made possible after studying various theories of vocational and human development. Some of the items were inspired by Bronfenbrenners' (1979, 2005) theory and the study by Burchardt (2004). The commonality in the aforementioned theory and the cited study is their perception of the influence of the dynamic interaction of the individual and the environment. Ideas derived from the theory and various previous studies were assessed in terms of their relevance and applicability to the research questions guiding this study and the participants' context. Having a theoretical framework enabled me to focus and to understand certain aspects of the problem as postulated by Anfara & Mertz (2006). All this was in an effort to secure face and construct validity which is crucial in a questionnaire.

Pretesting and piloting of instruments: The items then underwent rigorous pretesting in Oslo and in home country. Finally the questionnaire was pilot tested and at each stage relevant adjustments were incorporated as discussed earlier in this chapter. It was hoped that these stages helped to improve both the reliability and validity of the instrument.

Phrasing of items: The 4 point Likert based scale used in this study had some items stated in the negative and others in the positive (see Appendix 4). This was a deliberate effort to further improve reliability by avoiding a bias response from the respondents. These kinds of questions are considered particularly useful for checking the honesty of the respondents as they take time to read and understand items before answering. In the construction of the questionnaire a variety of questioning techniques were also utilised. They included both fixed response and open ended questions. It was expected that the open ended questions provided the respondents with an opportunity to express what they consider pertinent in their perspective and hence further improve credibility of their results. These insights were considered useful in helping to contribute an interesting perception of learners with visual impairments in their local context.

Standardisation of procedure: The way an instrument is administered can also be a threat to its reliability and validity; hence necessary steps were taken to counteract such threats. I therefore tried to ensure that the respondents were exposed to the same procedure and that the instructions were complied with. This was made possible by personally administering and collecting the questionnaires. Since my respondents were visually impaired other special considerations that I undertook included:

a) Providing touch readers with Braille copies of the questionnaire
b) Ensuring that touch readers had the Braille machine and relevant papers for their full participation.
c) Reading aloud each item and giving them ample time to answer.
d) Encouraging the respondents to seek clarity on what they found unclear.
e) Providing a 20 minutes break after the first session so as to avoid fatigue
f) Providing a scoring key for the Likert based scale on each page for ease of reference.

Securing confidentiality: In addition to the above a level of anonymity was secured by assigning each respondent a number that was code linked to their name. This was necessary for purpose of pairing the two sets of questionnaires as well as for further identification of interviewees in the follow up study.

Statistical considerations: The careful handling of data collected and guided analysis process served to enhance reliability and validity. Purifying of raw data before the analysis was also geared towards the same by attempting to secure accuracy of results. The scores of the Likert based scale were assessed for reliability through computation of Cronbach coefficient alpha. It yielded a reliability alpha value of .7680 (see Appendix 6). A reliability coefficient alpha of .70 and above is considered as a reliable measure especially taking into account that this instrument was used for the first time.

3.6 Sub study 2: the interviews

Yin (2003b: 89) observes that one of the most important sources of case study information is the interview. According to Hesse-Biber & Leavy (2006), qualitative interviews can be used to yield exploratory, descriptive and explanatory data. In addition they note that interviews may be used in conjunction with another method such as a survey. As described in 3.1 the present study consisted of two sub studies; a survey and interviews (see 3.2). The present sub chapter (3.6) concerns the interview study.

Criteria for selection of interviewees

Purposive sampling was used to select 12 learners for interview out of the 79 survey participants. According to Yin (2003b), a case can be an individual, event or a situation. In the present study each learner with a visual impairment represents a case. Conducting a preliminary analysis of Sub study 1 results, boosted my confidence, in the sense that I felt like I now knew more about my participants and hence the settling for 12 interviewees. In addition the information obtained helped set the criteria of sampling of cases for interviews. Consideration was given to information relating to demographic data,[2] future educational plans, aspired vocation and expressed willingness to participate in follow up study (see appendix 3 Question 23). Stake (1995) recommends that cases should be selected for their uniqueness as well as their commonality.

3.6.1 Development of interview guide

To facilitate data collection for Sub study 2, a semi-structured interview guide was developed and used as the main data collection instrument. Semi-structured interviews rely on a certain set of questions and try to guide the conversation to remain more loosely on those questions (Hesse-Biber & Leavy, 2006: 125). The interview method was especially relevant for my study as it permitted the use of probes which led to further enrichment of data. Due to its conversational nature, some respondents ended up giving additional information, relevant to the study, but which had not been anticipated while formulating the interview guide.

Interview questions were formulated based on the preliminary analysis of Sub study 1 and in view of research questions and theory guiding the present study. The questions focused on certain themes that had been identified as pertinent by participants in Sub study 1. These themes include the influence of school, family, choice of vocation and other external factors (see Appendix 5).

3.6.2 Pretesting and piloting

Pretesting was conducted in home country using a colleague who is visually impaired and a special needs education, university lecturer with vast experience of teaching learners with visual impairments. Further guidance on the same was also provided for by my local advisor in Kenya. After making necessary adjustments on the interview guide a pilot study was then conducted, following closely the procedures of Sub study 2.

Lessons learned from the pilot study

The pilot study revealed some weaknesses in phrasing of some questions and the procedure of the interview. These included the necessity of giving the respondent sufficient time for comprehension of question, organisation of thoughts before verbally responding. The choice of the interview venue pointed to a need for a quiet

[2] Demographic data included different provinces, schools, age, gender, class, degree of vision, congenital/adventitiously acquired vision loss & parental background.

environment, free from interruptions. During the piloting I was assigned a room which though quiet also happened to store other materials for school use and we were twice interrupted when learners were sent to fetch them.

The recorded pilot interviews helped me identify other skills that I needed to improve upon. They included slowing my speaking pace and remaining focused even when using probes. In addition it provided me with an opportunity to familiarise myself with the recorder mechanisms and identification of appropriate positioning of recorder during interviews.

3.7 Interview procedure and process

Appointments: Having conducted Sub study 1, I had been assigned contact teachers at each school for purposes of follow up study. On completion of preliminary analysis of data collected in the survey, I made telephone calls to the contact teachers and in consultation with the schools programmes fixed appointment dates were made for each selected school. These dates were then carefully entered in my diary and the field note book. This was important for me as two schools were located at a distance from my home and it necessitated making advance travel and accommodation plans. I was fortunate that in one of the schools I was hosted by the school administration and given a favourable reception during data collection period.

Interview process and procedure: At each school, I ensured that I arrived well in advance of the scheduled time. This proved particularly useful as it provided sufficient time to choose in consultation with contact teacher the appropriate setting for the interview session. The interviews were conducted at the respective schools and in a familiar environment. This was especially important taking into consideration my cases were learners with visual impairments.

Prior to the interview, casual talk was initiated with the interviewee so as to create rapport. It was during one such casual talk that an interviewee requested for use of

Kiswahili language.[3] Each interviewee was then reminded of the aims of the study, assured of confidentiality and requested to give consent for audio recording. All the twelve interviewees readily gave their consent to audio recording.

Each respondent was recorded individually and at the end of the recording session, the tape was played back giving the respondent additional time to clarify or review an issue mentioned. Any additional comments were noted in the field book. Finally the interviewee was thanked for participation and sharing knowledge on the problem and reassured of anonymity and confidentiality.

Interview duration: There was variation in time taken with each interviewee as it depended on the uniqueness of each. The shortest session lasted 35 minutes; while the rest varied between 60 and 75 minutes, with the exception of one that lasted 120 minutes. This arose after an interviewee requested me to listen to his music compositions after concluding our session.

Language used in the interviews: Although Kenya is endowed with a variety of languages, English and Kiswahili are the most recognised for official and non official communication. English is the medium of instruction in all learning institutions in the republic. Kiswahili, originating from the coastal region is the national language and is widely spoken by a majority of Kenyans. It is also taught as an obligatory subject in the formal school system. English language was used to conduct eleven out of twelve interviews. The remaining one interviewee expressed a request for Kiswahili language and this was honoured. The interviewer fortunately has command of Kiswahili language having studied the language at bachelor studies in addition to having been raised at the Coast province, where it is widely spoken.

Audio tapes: All the interviews were audio recorded and each tape was labelled with code letters for relevant school and name in addition to noting date and time. This was necessary for purpose of identification during transcription and subsequent analysis.

[3] This came as a surprise for me but the request was honoured, and had to fall back to my expertise in Kiswahili language to conduct the session.

After data analysis the code letters for the interviewees were substituted with pseudo names as presented in table 8, chapter 5.

Field notebook: Information that had been derived from analysis of the survey and official school records was carefully summarised in the notebook for each selected interviewee. This aimed at further consolidation of information. In addition details regarding my interview schedules as well as venue and emergent themes during interview were briefly noted in the field book.

3.8 Analysis of Data

Data analysis process and procedure: The audio taped interviews were transcribed verbatim in hand writing by the interviewer. These were then assigned code letters for securing anonymity. The tapes were then replayed for further crosschecking across transcriptions. Independent qualified assistance was requested for translation of the Kiswahili transcription. Further assistance was utilised for crosschecking the transcribed data vis-à-vis the audiotapes, on a sample of the transcribed interviews.[4] This assistance was provided by an experienced teacher of learners with visual impairments. The handwritten transcriptions were then typed and thoroughly proofread with help from two university students in home country.

The next step involved reading of each transcription for purposes of familiarisation with data. Summaries were then made on salient issues emanating of each case. This led to identification of the 'rich case interview' which was read repeatedly. Varied coloured highlighters were employed to mark relevant segment of concepts pertinent to the study. Segments of the transcripts that represented more than one concept were marked with different coloured highlighters.

The highlighted segments led to identification of main categories. Guiding questions were then developed, which eased the discovery of subcategories under each main category. The procedure used in the 'rich case interview' was then applied to the remaining interview transcriptions (see Appendix 9 & 10). This pattern of analysis

[4] Sampling of interview transcriptions considered representation of different provinces, gender and degree of vision.

proved especially useful in identification of commonalities as well as uniqueness within and across cases. It further yielded important quotes that were used in presentation of results in chapter 5. This rigorous process of data analysis was done with guidance and consultation with the advisor in Norway.

3.9 Efforts made to enhance validity and reliability

Before interviews: The pretesting and piloting of the interview guide aimed at securing validity and reliability. This was further strengthened by supplementary data earlier obtained from survey and official school records. Hence bias that may have emanated from solely relying on one data source may have been arrested.
During interview: The use of probes and provision of sufficient time for interviewees to think clearly before responding helped secure validity and reliability. I also tried to follow up an issue where necessary for further clarification. The interviewees were also given room to provide additional information relevant to the study. In addition using the audio recorder and replaying it to the interviewees helped them accurately review, where necessary, the information provided. Yin (2003b:92), notes that audiotapes provide a more accurate rendition of any interview than any other method.

After interviews: The use of independent and qualified assistance in translation, crosschecking and proofreading of transcriptions was applied to enhance validity and reliability. This was further strengthened by close guidance and consultation with advisor at the University of Oslo who read the analysis of the twelve cases.

Possible threats to validity and reliability

As earlier stated, one of the interviews was conducted in Kiswahili and I had no prior knowledge which resulted in an impromptu translation of the already prepared guide. This may have been a threat to validity and reliability. Secondly, I was well known in all the schools having been directly involved in training quite a number of their teachers. There was a possibility that their learners could be influenced by this factor,

hence making them give information aimed at creating a favourable impression of themselves rather than their actual individual future plans.

Although special care was taken in handling, transcriptions, translation, storing and analysis of data it is still possible that during some of these stages minimal threats to reliability and validity may have been introduced, yet escaping my notice.

3.10 Ethical considerations

Gaining formal entry: In order to conduct research certain principles relating to ethical considerations must be put in place. Researchers' emphasize that gaining entry to the study population should be done in consultation and consent of relevant authorities as well as the targeted study population (Gall, et al., 2003).
In view of the present study, I was first given an introductory letter by the University of Oslo, Department of Special Needs Education (see Appendix 1). It specified my details and explained that the research study was part of requirements for my scholarly work. This letter and an approved copy of my research proposal were forwarded to the MOEST headquarters in Nairobi through the local advisor, seeking a research permit. In Kenya it is an obligatory requirement to seek for official clearance from relevant authorities before embarking on any research study and this was adhered to. Secondly, it is expected that two copies of my final thesis will be submitted to the same authorities for reference.

It was only after receiving an official letter granting authority to conduct research that I embarked on the field work (see Appendix 2). I therefore contacted relevant authorities, including school administrators and received consent to use their schools. In all the schools I took time to explain the aims of my study to the staff as well as the learners with visual impairments. Learners were assured of anonymity and confidentiality and reminded that their participation was on a voluntary basis.

Confidentiality: All the information received was treated confidentially and has only been used in relation to the present study. Information regarding identity of the individuals and respective school were not disclosed, throughout the study process and

presentation of the findings. These efforts were geared at protecting and maintaining the privacy and dignity of study participants and their respective institutions (Gall et. al., 2003).

Other important ethical considerations for persons with disabilities: Participants who have disabilities are viewed as having a high degree of vulnerability (Mertens & McLaughlin, 2004) and it is recommended that extra care should be taken when they form the study population. In the present study I tried to create a trusting relationship that conveyed an atmosphere of respect and acceptance. This may perhaps have been aided by my working experience as a teacher for persons with visual impairments. In addition language used in presenting results is that of 'person first' followed by the impairment factor, hence placing less emphasis on the impairment (Skjørten, 1997; Mertens & McLaughlin, 2004 & MOEST, 2006). Hence, throughout my presentation I have referred to my participants as learners with visual impairments; learners with low vision or learners who are blind.

4. Presentation and analysis of Sub study 1

The present study set out to explore the vocational aspirations of learners with visual impairments in upper primary school. It aimed at answering the following research sub questions:

1. What kinds of vocations do learners with visual impairments mostly aspire for?
2. What factors influence the vocational aspirations of learners with visual impairments?
3. How do factors identified through sub question 2 (above) influence their vocational aspirations?

As described in chapter 3, this study consisted of two sub studies. Sub study 1was of a quantitative nature and constituted of a survey. Its purpose was to explore in greater breadth the vocational aspirations of learners with visual impairments. Sub study 2, was qualitative in nature and comprised of individual interviews. It focused in greater depth how these learners may have come to believe that the vocations as identified in Sub study 1 were appropriate for them. The results of Sub study 1 and brief comments on some of the findings are presented in this chapter. The research questions guiding Sub study 1were research questions 1 and 2 as shown above. Results from Sub study 2 are presented in chapter 5.

4.1 Sub study 1: The survey

Data were collected from a sample of 79 learners with visual impairments; 38 females and 41 males respectfully. Two categories of learners with visual impairments were drawn in the study; namely those with low vision and those who are blind. Those with low vision comprised of 23 females and 18 males. Those who are blind constituted of 15 females and 23 males. In line with recommendations by Yin (2003a) on case study, the results of the survey are presented in terms of frequencies and percentages.

4.1.1 Most aspired vocations by learners with visual impairments.

The respondents identified various types of vocations that they were aspiring to in response to the open ended question (see Appendix 3, question 20) which requested them to list their vocational choices according to what they liked best. The first choice of vocation was taken as the vocation that they most aspire for and is the one used in the table below.

Table1: Most aspired vocation among 79 learners with visual impairments across gender and degree of vision.

Most aspired vocation	Gender	Degree of vision		Total number	Percent
		Blind	Low vision		
Lawyer	Female	5	7	24	*30.4*
	Male	7	5		
School teacher	Female	4	3	16	*20.3*
	Male	6	3		
University lecturer	Female	4	5	13	*16.5*
	Male	2	2		
Doctor	Female	0	3	7	*8.9*
	Male	0	4		
Media*	Female	0	0	3	*3.8*
	Male	1	2		
Accountant	Female	0	1	2	*2.5*
	Male	1	0		
Pilot**	Female	0	2	2	*2.5*
	Male	0	0		
Musician*	Female	0	0	2	*2.5*
	Male	2	0		
Ambassador*	Female	0	0	2	*2.5*
	Male	2	0		
Others***	Female	2	2	8	*10.1*
	Male	2	2		
Total		**38**	**41**	**79**	***100***

N = 79; n = 79; *Identified by male learners only; **Identified by female learners only

*** Manager of company, writer, driver, farmer, hairdresser, police officer, telephone operator & tailor.

It can be observed that in the first choice category lawyer (24; 30.4%) has the most aspirants, followed by school teacher (16; 20.3%), university lecturer (13; 16.5%) and doctor (7; 8.9%). Interestingly the field of law, teaching and university lecturer have attracted both genders with varying degree of visual impairments as observed from presented data. The same is not the case for the doctor category whereby all those attracted to this vocation are learners with low vision (7; 8.9%). It can therefore be concluded, from the data provided that the vocations mostly aspired by learners with visual impairments, in order of dominance are; lawyer, school teacher, university

lecturer and doctor. Furthermore, the respondents who are blind seem to reject the field of medicine (doctor) as a suitable vocation for them though a desired choice for some respondents who are low vision.

The other vocations which attracted one to two responses indicated some gender bias, with an exception on accountancy field. The male learners' aspirations are noted in the fields of media, musician, and ambassador, manager of a company, writer, driver and farmer. Their female counterparts on the other hand demonstrated a bias for professions like pilot, hairdresser, police officer, telephone operator and tailor.

Comment

Although learners came up with a list of varied jobs that they may have wished to engage in, an unsettling finding was noted. None of the learners expressed interest in joining the field of information technology, despite it being the trend in the modern world. They also aspire for high status professional jobs. Perhaps in their choice of vocations, it may be that they are influenced by what is visible in their own environment or propagated by media. A recent survey conducted by Steadman Group (The Daily Nation, 2007, February 4) and published in a local daily revealed that teachers and doctors are held in high regard. Those aspiring to be teachers or doctors may perhaps be influenced by a high interaction with such profession and possibly also by the media among other factors. In regard to those aspiring to be lawyers, in Kenya, quite a number of individuals who are visually impaired have succeeded in this field and perhaps this may contribute in some way. It is interesting to note that respondents who are blind steered away from aspiring to be doctors while those with low vision showed that it's a worthwhile vocation for them.

4.1.2 Some factors that may influence the vocational aspirations of learners with visual impairments

A 4 point Likert scale was used to assess the respondents' feelings and concerns on certain factors which may influence their future aspirations. The scale with fixed response items ranged from A (strongly agree) to D (strongly disagree) as described in chapter 3 section 3.3.The results are presented below under the four subheadings; hope

for leadership position in their future career, importance of views of significant others on choice of future job, desire to work with other who are not visually impaired and opinion on whether workers who are visually impaired can be successful compared to others.

Hope for leadership position in their future career

To find out whether they harboured ambitions of leadership position in their future careers, the participants were asked to indicate their level of agreement. The results are presented in table 2.

Table 2: Hope for leadership position in future

Degree of vision	Gender (sum)	'I hope to become a leader in my future career'								Total	
		Strongly Agree		Agree		Disagree		Strongly disagree			
		n	(sum)	n	(sum)	n	(sum)	n	(sum)	n	%
Blind	Female (15)	12		2		1		0			
	Male (23)	14	(26)	4	(6)	3	(4)	2	(2)	38	*48.7*
Low Vision	Female (22)	15		4		1		2			
	Male (18)	15	(30)	1	(5)	0	(1)	2	(4)	40	*51.3*
Total sum/ %		56	*71.8*	11	*14.1*	5	*6.4*	6	*7.7*	78	*100*

N = 79; n = 78

Table 2 shows that out of a total of 79 participants, 78 responded to the item. Of the 78 participants, 38 were blind and 40 were low vision. A look at the totals based on level of agreement, shows that 56 (71.8%) of the participants answered 'strongly agree' concerning hope for leadership position in future career. If we add 11(14.1%), who agreed, we see that 67 (85.9%) out of the 78 participants had a positive agreement to the statement. Altogether 11(14.1%) out of the78 participants disagreed/ strongly disagreed.

Distribution across degree of vision. The distribution of scores among participants, who were blind, shows that 26 strongly agreed and 6 agreed. If we add the two figures, we see that 32 out of the 38 participants who were blind had hope for leadership position in their future career. Hence only 6 out of the 38 participants who were blind

disagreed/ strongly disagreed. With regard to the 40 participants with low vision, 30 strongly agreed and 5 agreed to the statement. By adding these two figures we see that 35 out of the 40 participants with low vision positively agreed to the statement, compared to 5 who indicated a disagreement/ strong disagreement.

Distribution across gender. A look at the results across gender shows that out of a total of 37 females, 27 answered 'strongly agree'. If we add 6 who agreed we see that 33 out of the 37 females had hope for leadership position in their future career, compared to 4 who disagreed/ strongly disagreed. With regard to their male counterparts, out of a total of 41 participants, 29 strongly agreed to the statement. If we add 5 who agreed we see that 34 out of the 41 male participants had a positive agreement to the statement compared to 7 who disagreed/ strongly disagree.

Table 2 shows that a majority of learners (67 out of 78) with visual impairments agreed/ strongly agreed with the statement, 'I hope to be a leader in my future career.' This distribution ran across degree of vision as well as gender.

Importance of views from significant others on choice of future job

To find out whether the views of parents, teachers and friends were of importance to the participants items were formulated to assess their level of agreement. The results are presented in the subsequent sections.

(a)Importance of parent views on choice of future job

The results to the negatively stated item, 'The views of my parents on my choice of future job are not important to me,' are presented in table 3.

Table 3: Importance of parents views on choice of future job

Degree of vision	Gender (sum)	'The views of my parents/guardians on the choice of my future job are not important to me.'								Total	
		Strongly Agree		Agree		Disagree		Strongly disagree			
		n	(sum)	n	(sum)	n	(sum)	n	(sum)	n	%
Blind	Female (15)	2		1		5		7			
	Male (23)	1	(3)	2	(3)	6	(11)	14	(21)	38	*48.7*
Low Vision	Female (22)	4		3		1		14			
	Male (18)	0	(4)	2	(5)	5	(6)	11	(25)	40	*51.3*
Total sum/ %		7	*8.9*	8	10.2	17	*21.8*	46	*59*	78	*100*

N = 79; n = 78

Table 3 shows that out of a total of 79 participants, 78 responded to the item. Of the 78 participants, 38 were blind and 40 were low vision. A look at the totals based on level of agreement, shows that 46 (59 %) of the participants strongly disagreed with the statement. If we add 17(21.8 %), who disagreed we see that 63(80.8%) out of the 78 participants had a negative agreement to the statement. Altogether 15(19.1%) out of the 78 participants agreed/ strongly agreed with the statement.

Distribution across degree of vision The distribution of scores among participants, who were blind, shows that 21 strongly disagreed while 11disagreed. If we add the two figures, we see that 32 out of the 38 participants who were blind had a negative agreement to the statement. Hence only 6 out of the 38 participants who were blind agreed/ strongly agreed with the negatively stated item. With regard to those participants with low vision, 25 strongly agreed and 6 agreed to the statement. By adding these two figures we see that 31 out of the 40 participants with low vision had a negative agreement to the statement, compared to 9 who indicated a positive agreement.

Distribution across gender A look at the results across gender shows that out of a total of 37 females, 21 answered 'strongly disagree' to the negatively stated item. If we add 6 who disagreed we see that 27 out of the 37 female participants' had a negative

agreement to the statement, compared to 10 who agreed/ strongly agreed. With regard to their male counterparts, out of a total of 41 participants, 25 strongly disagreed to the statement. If we add 11 who disagreed we see that 36 out of the 41 male participants had a negative agreement to the statement compared to 5 who agreed/ strongly agreed.

Table 3 therefore shows that a majority of learners with visual impairments (63 out of 78) feel that their parents' views are important in relation to their future job choices. This distribution ran across degree of vision as well as gender.

(b)Importance of teachers views on choice of future job

The results of the negatively stated item, 'the views of my teachers on my choice of future job are not important to me' are presented in table 4

Table 4: Importance of teachers' views on choice of future job

Degree of vision	**Gender (sum)**	**'The views of my teachers on the choice of my future job are not important to me.'**								**Total**	
		Strongly Agree		**Agree**		**Disagree**		**Strongly disagree**			
		n	**(sum)**	**n**	**(sum)**	**n**	**(sum)**	**n**	**(sum)**	**n**	**%**
Blind	Female (15)	2		1		4		8			
	Male (23)	5	(7)	5	(6)	3	(7)	10	(18)	38	*49.4*
Low Vision	Female (22)	1		1		6		14			
	Male (17)	2	(3)	0	(1)	6	(12)	9	(23)	39	*50.6*
Total sum/ %		10	*13*	7	*9.1*	19	*24.7*	41	*53.2*	*77*	*100*

N = 79; n =7 7

Table 4 shows that out of a total of 79 participants, 77 responded to the item. Of the 77 participants, 38 were blind and 39 were low vision. A look at the totals based on level of agreement, shows that 41(53.2%) of the participants strongly disagreed. If we add 19 (24.7%), who disagreed we see that 60 (77.9%) out of the78 participants had a negative agreement to the statement. Altogether 17 (22.1%) out of 78 agreed/ strongly agreed with the negatively stated item.

Distribution across degree of vision. The distribution of scores among participants, who were blind, shows that 18 strongly disagreed and 7 disagreed. If we add the two figures, we see that 25 out of the 38 participants who were blind had a negative

agreement to the statement. Hence only 13 out of the38 participants who were blind agreed with the negatively stated item. With regard to those participants with low vision, 23 strongly disagreed and 12 disagreed with the negatively stated item. By adding these two figures we see that 35 out of the39 participants with low vision had a negative agreement to the statement, compared to 4 who indicated a positive agreement.

Distribution across gender A look at the results across gender shows that out of a total of 37 females, 22 answered 'strongly disagree.' If we add 10 who disagreed we see that 32 out of the 37 female participants had a negative agreement to the statement, compared to 5 who agreed/ strongly agreed. With regard to their male counterparts, out of a total of 40 participants, 19 strongly disagreed to the statement. If we add 9 who disagreed we see that 28 out of the 40 male participants had a negative agreement to the statement compared to 12 who positively agreed.

Table 4 therefore shows that a majority of learners with visual impairments (60 out of 78) feel that their teachers' views are important in relation to their future job choices. This distribution ran across degree of vision as well as gender.

(c)Discussion with friends on choice of future job

The results of the positively stated item, 'I often discuss my choice of future job with my friends,' are presented in table 5.

Table 5: Discussions with friends on choice of future job

Degree of vision	**Gender (sum)**	**'I often discuss the choice of my future job with my friends'**								**Total**	
		Strongly Agree		**Agree**		**Disagree**		**Strongly disagree**			
		n	**(sum)**	**n**	**(sum)**	**n**	**(sum)**	**n**	**(sum)**	**n**	**%**
Blind	Female (15)	6		7		1		1			
	Male (23)	12	(18)	6	(13)	2	(3)	3	(4)	38	*49.4*
Low Vision	Female (22)	16		6		0		0			
	Male (17)	10	(26)	6	(12)	0	(0)	1	(1)	39	*50.6*
Total sum/ %		44	*57.1*	25	*32.5*	3	*3.9*	5	*6.5*	*77*	*100*

N = 79; n = 77

Table 5 shows that out of a total of 79 participants, 77 responded to the item. Of the 77 participants, 38 were blind and 39 were low vision. A look at the totals based on level of agreement, shows that 44 (57.1%) of the participants strongly agreed. If we add 25 (32.5%), who agreed we see that 69 (89.6%) out of the 78 participants had a positive agreement to the statement. Altogether only 8 (10.4%) out of the 78 participants disagreed/ strongly disagreed.

Distribution across degree of vision The distribution of scores among participants, who were blind, shows that 18 strongly agreed and 13 agreed. If we add the two figures, we see that 31 out of the 38 participants who were blind had a positive agreement to the statement. Hence only 7 out of 38 participants who were blind disagreed/ strongly disagreed. With regard to those participants with low vision, 26 strongly agreed and 12 agreed to the statement. By adding these two figures we see that 38 out of the 39 participants with low vision positively agreed to the statement, compared to only 1 who strongly disagreed.

Distribution across gender A look at the results across gender shows that out of a total of 37 females, 22 answered 'strongly agree.' If we add 13 who agreed we see that 35 out of the 37 female participants had a positive agreement to the statement, compared to 2 who had a negative agreement. With regard to their male counterparts, out of a total of 40 participants, 22 strongly agreed to the statement. If we add 12 who agreed we see that 34 out of the 40 male participants had a positive agreement to the statement compared to 6 who disagreed/ strongly disagreed.

Table 5 therefore shows that a majority of learners with visual impairments (69 out of 77) discuss with their friends the choice of their future job. This distribution ran across degree of vision as well as gender.

Desire to work with others who are not visually impaired

Learners with visual impairments were asked if they envisaged working with others who are not visually impaired. The results of their responses are presented in table 6.

Table 6: Desire to work with others who are not visually impaired

Degree of vision	Gender (sum)	'I would like to work with others who are not visually impaired.'								Total	
		Strongly Agree		Agree		Disagree		Strongly disagree			
		n	(sum)	n	(sum)	n	(sum)	n	(sum)	n	%
Blind	Female (14)	8		5		1		0			
	Male (23)	11	(19)	8	(13)	3	(4)	1	(1)	37	*49.3*
Low Vision	Female (21)	12		6		2		1			
	Male (17)	7	(19)	4	(10)	2	(4)	4	(5)	38	*50.7*
Total sum/ %		38	*50.7*	23	*30.7*	8	*10.6*	6	*8*	*75*	*100*

N = 79; n = 75

Table 6 shows that out of a total of 79 participants, 75 responded to the item. Of the 75 participants, 37 were blind and 38 were low vision. A look at the totals based on level of agreement, indicates that 38 (50.7 %) of the participants answered 'strongly agree.' If we add 23 (30.7 %), who agreed we see that 61(81.4%) out of the 75 participants had a positive agreement to the statement. Altogether only 14 (18.6%) out of the 75 participants disagreed/ strongly disagreed.

Distribution across degree of vision The distribution of scores among participants, who were blind, shows that 19 strongly agreed and 13 agreed. If we add the two figures, we see that 32 out of the 37 participants who were blind had a positive agreement to the statement. Hence only 5 out of 37 participants who were blind disagreed/ strongly disagreed. With regard to those participants with low vision, 19 strongly agreed and 10 agreed to the statement. By adding these two figures we see that 29 out of the 38 participants with low vision positively agreed to the statement, compared to 9 who disagreed/ strongly disagreed.

Distribution across gender A look at the results across gender shows that out of a total of 35 females, 20 answered 'strongly agree.' If we add 11 who agreed we see that 31 out of the 35 females positively agreed to the statement, compared to 4 who disagreed/ strongly disagreed. With regard to their male counterparts, out of a total of 40 participants, 18 strongly agreed to the statement. If we add 12 who agreed we see that

30 out of the 40 male participants had a positive agreement to the statement compared to 10 who disagreed/ strongly disagreed.

Table 6 shows that a majority of learners with visual impairments (61 out of 75) agreed/ strongly agreed with the statement, 'I would like to work with others who are not visually impaired.' This distribution ran across degree of vision as well as gender.

Opinion on whether workers who are visually impaired can be successful compared to others

Participants were asked whether they thought that workers who are visually impaired can be just as successful at work as others who are not. The results are presented in table 7.

Table 7: Opinion on whether workers who are visually impaired can be successful compared to others

Degree of vision	Gender	**'Workers with visual impairments can be just as successful as others.'**								**Total**	
		Strongly Agree		**Agree**		**Disagree**		**Strongly disagree**			
		n	**(sum)**	**n**	**(sum)**	**n**	**(sum)**	**n**	**(sum)**	**n**	**%**
Blind	Female (15)	11		1		1		2			
	Male (23)	13	(24)	6	(7)	3	(4)	1	(3)	38	*48.7*
Low Vision	Female (22)	16		4		1		1			
	Male (18)	14	(30)	2	(6)	0	(1)	2	(3)	40	*51.3*
Total sum/ %		54	*69.2*	13	*16.7*	5	*6.4*	6	*7.7*	78	*100*

N = 79; n = 78

Table 7 shows that out of a total of 79 participants, 78 responded to the item. Of the 78 participants, 38 were blind and 40 were low vision. A look at the totals based on level of agreement, indicates that 54 (69.2%) of the participants answered 'strongly agree'. If we add 13 (16.7%), who agreed we see that 67 (85.9%) out of the 78 participants had a positive agreement to the statement. Altogether only 11 (14.1%) out of the 78 participants disagreed/ strongly disagreed.

Distribution across degree of vision The distribution of scores among participants, who were blind, shows that 24 strongly agreed and 7 agreed. If we add the two figures, we see that 31 out of the 38 participants who were blind had a positive agreement to the statement. Hence only 7 out of the 38 participants who were blind disagreed/ strongly

disagreed. With regard to those participants with low vision, 30 strongly agreed and 6 agreed to the statement. By adding these two figures we see that 36 out of the 40 participants with low vision positively agreed to the statement, compared to 4 who disagreed/ strongly disagreed.

Distribution across gender A look at the results across gender shows that out of a total of 37 females, 27 answered 'strongly agree.' If we add 5 who agreed we see that 32 out of the 37 females positively agreed to the statement, compared to 5 who disagreed/ strongly disagreed. With regard to their male counterparts, out of a total of 41 participants, 27 strongly agreed to the statement. If we add 8 who agreed we see that 35 out of the 41 male participants had a positive agreement to the statement compared to 6 who disagreed/ strongly disagreed.

Table 7 shows that a majority of learners with visual impairments (67 out of 78) agreed/ strongly agreed with the statement, 'Workers with visual impairments can be just as successful as others.' This distribution ran across degree of vision as well as gender.

In summing up results obtained from the Likert based scale show that learners with visual impairments have a relatively high aspiration towards achievement of their vocational goals. This is deduced from the overall high scores on various items of the scale (See appendix 8). Some of the issues presented in this chapter were further explored in Sub study 2 and their results are presented in the next chapter. In addition question 22 (see Appendix 3), which was qualitative in nature was also used as exploratory data in Sub study 2. Hence, quantitative data derived from Sub study 1 was used to confirm and further explore factors in the qualitative analysis.

5. Presentation and analysis of Sub study 2

Sub study 2 aimed at getting a deeper understanding of the vocational aspirations of learners with visual impairments and a further exploration of additional aspects with relevance to the research question. The third research sub question that guided Sub study 2 was:

- How do factors identified through research sub question 2 influence the vocational aspirations of learners with visual impairments?

5.1 Sub study 2: The interviews

Background information on the twelve cases that were interviewed is first presented. This information was derived from analysed data of Sub study 1and official school records. This is in line with Stake (2006: 29) recommendations that details which are not readily observable are best obtained through interviewing those concerned or through recorded documents.

Table 8: Background information of the 12 interviewees with visual impairments

Cases	Gender	Age	Vision	Current class	School type	Person child lives with	Aspired job
Jim [R]	Male	18	Blind	8	Special	Guardian	Professor
Joe [R]	Male	20	Blind*	8	Special	guardian	Lawyer
Ian [U]	Male	14	Blind*	7	Special	guardian	Musician
Roy [R]	Male	14	Blind	7	Special	parents	Lawyer
Tim [U]	Male	14	Low vision	8	Integrated	parents	Doctor
John [U]	Male	13	Low vision	7	Special	parents	Vice president
Kate [U]	Female	14	Blind*	7	Integrated	parents	Lawyer
Joy [R]	Female	14	Blind	8	Special	parents	Hair dresser
Pam [R]	Female	20	Blind	8	Special	parents	Teacher
Ruth [R]	Female	18	Low vision	8	Special	parents	Teacher
Lyn [U]	Female	16	Low vision	7	Special	parents	Tailor
Irene [U]	Female	14	Low vision	8	special	parents	Lawyer

N = 12; n = 12; * Adventitiously blinded
[R] Interviewee comes from rural area; [U] Interviewee comes from urban area

Table 8 provides the interviewees' background and the jobs they aspire for. To protect the identity of the cases, pseudo names have been used. As shown on the table, *six male learners* were interviewed with ages ranging from 13 to 20 years.

Four of them were blind while two were low vision. In addition out of the four male learners who were blind, two of them (Joe and Ian) had acquired their blindness while at regular schools and had transferred to special schools for rehabilitation and educational purposes. Apart from Tim who is low vision and enrolled in an integrated programme the rest are in residential special schools. Out of the six male learners with visual impairments, three live with their guardians and the rest live with their parents in rural or urban setting. Information on their current class in school and their aspired future job is also presented on the table.

Female learners who were interviewed were also six in number with ages ranging from 14 to 20 years. They comprised of three with low vision and three who are blind. Out of the three females who are blind one of them (Kate) acquired her blindness while at a regular school and had transferred to an integrated programme for rehabilitation and educational purposes. The rest of the female learners were enrolled in special residential school. All the six female learners with visual impairments lived with their parents in either rural or urban setting. Information on their current classes in school and their aspired future vocations are also included in the table.

Out of the twelve interviewees it was only one (John) who was inconsistent in choices of jobs he aspires; his questionnaire responses differed from those of the interview. The rest however were consistent with information they had provided earlier. The presentation of results that follows is done according to two main broad factors, identified in the interview data. They were environmental factors of influence and individual factors of influence on the vocational aspirations of the participants. A cross case analysis of the results obtained from the twelve interviewees is presented in matrix tables and in text. The presentation data is organised in the following manner; environmental factors of influence on both genders followed by a comparison based on gender and degree of vision; individual factors of influence followed by a comparison across gender and degree of vision. Finally a comparison between individual and environmental factors of influence within male and female interviewees is presented.

5.1.1 Environmental factors of influence on vocational aspirations of male and female learners with visual impairments.

Both male and female interviewees reported a variety of environmental factors that influence their future aspirations. Three main categories identified by the interviewees were, expectations from significant others, barriers and other external factors. Under each of the categories, subcategories were further identified. To ease the overview of the cross case analysis of the 12 interviewees, numeric sums are presented in brackets. In addition the results are presented in descending order.

Male learners with visual impairments: The results of a cross case analysis of environmental factors of influence as identified by the six male learners is presented in table 9.

Table 9: Environmental factors of influence on vocational aspirations as perceived by six male learners with visual impairments

Cases	Environmental factors of influence											
	Expectations from significant others			Barriers					Other external factors			
	Parents/Guardians	Teachers	Others	Types of training offered at vocational centres	Employment opportunities	Negative attitude	School curriculum	Public policy	Public role models	Mass media	Awareness events for persons with disabilities	(Sum)
Jim*	X	X		X	X	X	X	X	X			(8)
Joe*	X		X	X	X	X		X		X	X	(8)
Ian*	X	X	X	X	X				X	X		(7)
Roy*	X	X		X	X	X	X					(6)
Tim**	X		X	X	X				X			(5)
John**	X	X	X						X	X		(5)
(Sum)	(6)	(4)	(4)	(5)	(5)	(3)	(2)	(2)	(4)	(3)	(1)	(39)

*blind; **Low vision

As mentioned in 5.1.1, the results in table 9 are presented, starting with the learner who reported most factors of influence. *Expectations from significant others* were influential factors on aspirations of learners with visual impairments. Specifically the expectations from parents emerged as the most dominant. All the six male learners with visual impairments identified parents as a factor of influence compared to four who reported teachers and four who cited others.

Examples taken from interviews on parents and guardians expectations were cited by Jim (blind) who noted, ‘They want me to go to university, be an important person.’ In addition some parents identified the job they deemed appropriate for their child as reported by Tim (low vision), ‘My dad wants me to be a musician.’

Teachers were another factor of influence as observed by Ian (blind) ‘They tell me to take care of my talent.’ Other factors of influence were friends, siblings and extended family members. The learners reported getting positive expectations and encouragement from people who they were frequently interacting with.

Barriers were expressed from the perspective of kind of training offered in vocational centres for learners with visual impairments, employment opportunities; negative attitudes from society, school curriculum and public policy. The most dominant in this sphere was the kind of training offered at the vocational centre for persons with visual impairments and employment opportunities with each being cited by five learners respectfully. School curriculum, negative attitudes and policy were also cited as barriers albeit by two learners across each specified subcategory.

As mentioned five of the learners cited the kind of training offered at the vocational centre for learners with visual impairments as a barrier. All the five shared the opinion that the training offered in these centres was basically for school dropouts or those who had never been to school. For example Roy (blind) noted, ‘You can’t go there if you had good marks to go to high school, unless your parents lack money.’

Four learners reported that getting salaried employment would be difficult. However one reported the contrary. Tim (low vision) observed the following, ‘It will be hard to get a job,’ while Ian (blind) who was aspiring to be an international musician observed, ‘I do not think they will be any problem.’ Others observed the difficulty in employment as emanating from negative attitude of prospective employers as noted by Joe (blind), ‘They can find someone who has sight.’

Negative attitude from the society was identified as a factor of influence by three male learners from this group. Jim (blind) noted, 'Some see like blind people as very unfortunate.' Other barriers cited were school curriculum and public policy. On the issue of school curriculum Jim (blind) lamented that the removal of home science as a teaching subject in their curriculum served as an impediment on the development of activities of daily living skills. He noted the following, 'Like now if you told me to cook, I can't. I don't know how.'

Other external factors that were expressed as influential include the role of mass media, public role models and school & community awareness events. Public role models occupied a dominant position whereby four males reported its influence compared to three who cited mass media and one who cited creation awareness events organised by school and society.

As regards public role models four males in this group identified it as a factor of influence. The male learners identified with able bodied public role models. For instance, Ian (blind) expressed a wish to be better than a Kenyan international musician (Redsan) who happened to be his role model, and remarked as follows, 'I want to be better than Redsan.' While Tim (low vision) observed the following in regard to a doctor who was his role model, 'In their family they take him as a president. He is the only one who has gone to school.'

The mass media was both a positive and negative factor of influence for these male learners. For instance Ian (blind) described how the international musicians are portrayed on television, 'They ride in big cars and whenever they appear in a crowd people cheer them.' While Roy (blind) recounted why he would not like to be a hawker from what he had seen on television, 'You see the hawkers being chased everyday from the streets by police.'

Awareness creation events organised by school and community were identified as factors of influence, by Roy (blind) who had twice won in an advertising competition.

He noted with pride, 'Our school was given a cheque of Kenya shillings 15,000.00 and I was given a gift pack.'

In summing up the analysis of the six interviews, a variation on factors of influence is noted. While two male learners with visual impairments out of the six interviewed had as many as eight factors the rest varied between seven and five factors of influence. These varied factors of environmental influences as identified by male learners with visual impairments were likely to influence their future educational and vocational goals.

Female learners with visual impairments: The results of a cross case analysis of environmental factors of influence on vocational aspirations as identified by the six female learners is presented in table10. The categories and subcategories identified were similar to those of their male counterparts.

Table 10: Environmental factors of influence on vocational aspirations as perceived by six female learners with visual impairments

Cases	Environmental factors of influence											
	Expectations from significant others			Barriers					Other external factors			(Sum)
	Parents/guardians	Teachers	Others	Types of training offered at vocational centres	Employment opportunities	Negative attitude	School curriculum	Public policy	Public role models	Awareness events for persons with disabilities	Mass media	
Irene**	X	X	X	X	X	X			X			(7)
Joy*	X		X	X		X			X	X	X	(7)
Lyn**	X	X		X	X				X	X		(6)
Ruth**	X	X			X				X			(4)
Pam*	X						X	X	X			(4)
Kate*	X	X							X			(3)
(Sum)	(6)	(4)	(2)	(3)	(3)	(2)	(1)	(1)	(6)	(2)	(1)	(31)

* Blind; ** Low vision

Table10 shows results of analysis of the environmental factors of influence according to the six female learners, starting with the one with the most factors. In the

expectations of significant others, parents emerged as the most dominant in this sphere. All the six female learners reported parental expectation as a factor of influence compared to four who cited teachers and two who cited others. Parents and guardians were reported as factors of influence as cited by Joy (blind), 'They like giving me hope by telling me that nothing can defeat me.'

Teachers were also cited as factors of influence as observed by Ruth (low vision), 'They tell us that if you want to be a teacher you must work hard.' Others also cited as influential factors include extended family members and friends. Irene (low vision) reported contradictory expectations from two sources. Of her friends she observed, 'They say I cannot become a lawyer because I am blind.' While of her aunt she observed, 'She says we can even do better than those who are sighted.'

In the *barriers* category types of training offered at vocational centres for learners with visual impairments and employment opportunities emerged as the most dominant factors. Each was cited by three females respectfully. Negative attitudes were cited by two learners while school curriculum and public policy were perceived as barriers by only one learner across each subcategory.

Three learners reported that the type of training offered at the vocational centres for learners with visual impairments were for academic underachievers. However Joy (blind) observed some usefulness of the training in relation to improvement of activities of daily living skills. She further expressed an interest of training for specific skill, 'I would like to be taught home management skills.' She however pointed out that it would only be after her completion of a professional course and while in gainful employment.

Other external factors that were reported include, public role models, awareness creation events organised by school and community as well as mass media. In this sphere public role models emerged as the most dominant factor of influence for female learners. All the six female interviewees reported the influence of public role models

compared to two who cited awareness creation events organised by school and society and one who reported mass media as an influential factor.

As regards employment opportunities female learners perceived it as a barrier only if one lacked required professional qualifications for the job in mind, as noted by Lyn (low vision), 'The employers would first like to see your certificates.' While another female learner was of the opinion that operating a business would be more difficult as many customers would be put off by the disability as noted by Irene (low vision), 'Not many people would like to come and buy your things.'

Irene (low vision) cited a chance meeting with her role model during the White Cane Day event. This is an awareness creation event organised at national level for persons with visual impairments. Irene (low vision) had held an encouraging conversation with her role model and she reported 'She told me that I can be able to do it so long as I work hard at school.' The public role models identified by three female learners who aspired to join teaching and law fields were those with visual impairments. Joy (blind) who aspired to be a hairdresser identified mass media as an influential factor and noted 'I see them in some magazines and advertisements in the newspapers.'

In summing up the analysis of the six interviews a variation of factors of influence is noted across the six female learners. Whereas two female learners cited seven factors of influence the rest varied between six and three. These reported environmental factors from the perspective of female learners were likely to influence their future educational and vocational goals.

Comparison of environmental factors of influence on vocational aspirations across gender and degree of vision

The comparison refers to the text in 5.1.1 and to the results as presented in tables 9 & 10.

Environmental factors of influence across gender: Although all six male learners with visual impairments cited positive *expectations from significant others*, a slight variation is noted among the females, as one of them reported the contrary (Irene - low

vision). In regard to *types of training offered at vocational centres* for learners with visual impairments none of the male learners expressed an interest. However one female learner (Joy, blind) indicated her preference for joining such institutions so as to learn home management skills.

Another variation observed across gender was in other *external factors* category. While female learners reported public role models who are visually impaired, their male counterparts cited able bodied public role models. In addition more female learners reported public role model as an influential factor compared to their male counterparts.

Overall more male learners reported on *barriers* in the environment as influential factors compared to their female counterparts. Not much difference was noted between males and females in expectation of significant others and other external factors.

Environmental factors of influence across degree of vision: Not much variation is noted across the twelve interviewees based on their degree of vision. However, as can be seen from the distribution in tables 9 and 10, learners who were blind cited school curriculum and public policy as barriers which were not cited by their counterparts with low vision.

5.1.2 Individual factors of influence on vocational aspirations of learners with visual impairments

Both male and female interviewees reported a variety of individual factors that influence their future aspirations. Three main categories identified were personal motivation, limitations and future plans. Subcategories were further identified under each main category. A slight variation was noted in the sub categories between male and female learners. To ease the overview of the cross case analysis of the 12 interviewees, numeric sums are presented in brackets. In addition the results are presented in descending order.

Male learners with visual impairments: The results of a cross case analysis of individual factors of influence as identified by the six male learners are presented in table 12.

Table 11: Individual factors of influence on vocational aspirations of six male learners with visual impairments

Cases	Individual factors of influence												
	Personal motivation						Limitations		Future plans				
	Recognition	Economic independence	Academic achievement	Personal dream	Determination	Talent	Vision	Frustrated ambitions	Higher education	Professional job	Special secondary	Regular day	(Sum)
Joe*	X		X	X	X		X	X	X	X	X		(9)
Jim*	X	X	X		X		X	X	X	X	X		(9)
Ian*	X	X		X	X	X	X		X	X	X		(9)
Tim**	X	X	X	X				X	X	X	X		(8)
Roy*	X	X	X				X		X	X	X		(7)
John**	X	X					X		X	X		X	(6)
(Sum)	(6)	(5)	(4)	(3)	(3)	(1)	(5)	(3)	(6)	(6)	(5)	(1)	(48)

* Blind; **Low vision

Table 11 shows results of analysis of the individual factors of influence from the perspective of male learners with visual impairments. *Personal motivation* included the most subcategories, namely recognition, economic independence, academic achievement, personal dream, determination and talent. All the six male learners with visual impairments expressed their need for recognition as an inner drive in attainment of their aspirations. Next in dominance was the desire for economic independence. Academic achievement was cited by four learners. Personal dream and determination were each reported by three learners respectfully. Only one male learner identified talent as an influential factor.

All the six interviewees reported that on achievement of higher education and a professional job, they would be respected by their families and community. For instance, Jim (blind), observed, ‘When you are a big person, now they will honour you.’ They further demonstrated their need for economic independence which according to them would serve to improve their quality of life and others who they hoped to assist. Specifically they aspired for higher status jobs that would earn them a good salary to enable them meet their economic needs. Tim (low vision) who felt responsible for uplifting his parents conditions, remarked, ‘I am the last born and I want to help my parents.’ While John (low vision) was concerned with assisting others who were deprived, observed, ‘I will be able to help others who are stopped from going to school because of fees.’

Four of the male learners expressed their ability to do well academically as a factor of influence. For example Roy (blind) noted, 'I do well in Kiswahili and English.' Jim (blind) too noted, 'I pass in Kiswahili and social science exams.' These learners cited a desire to fulfil a personal dream through attaining vocational goals of their choice. This was expressed by Joe (blind) who observed, 'My dream is to be a lawyer' while Tim (low vision) noted the following, 'Mine is a doctor that is in my heart.' It was only Ian (blind) who reported that his talent was an influential factor, he observed, 'I feel that I have the talent for music.'

Jim (blind) expressed a personal determination to achieve his aspirations and was of the opinion, 'If your brain can be developed, there is nothing that you cannot do.' Roy's (blind) determination stemmed from wanting to prove that he had the ability to make it in life. He observed, 'I want to prove that a visually impaired person can do what seems to be superior or difficult to achieve.'

Personal motivation is an influential factor for this group of learners. They all cite varied intrinsic and extrinsic motivational factors of influence which propel them to higher aspirations in attainment of both educational and vocational goals.

In regard to the second main category, *limitations,* two subcategories were identified, that is, vision and frustrated ambitions. Vision subcategory occupied dominance in this regard and was expressed by five male learners in this group compared to frustrated ambitions which was cited by three. Poor vision or its absence featured strongly among the male learners and they acknowledged that there were certain jobs that would be impossible for them. Roy (blind) noted, 'I would not like to be a policeman because of my sight.' Similar sentiments were expressed by John (low vision) who noted, 'You cannot be an engineer if you are not seeing.'

Another interesting issue that cropped up was the notion of frustrated ambitions. Three of these learners' nursed ambitions which they felt would be near impossible to achieve. Jim (blind) lamented that he was good in the science subject but felt that due to its practical nature he would be unable to cope with its demands in the event that he

wished to pursue it at an advanced level. He noted, ‘I wish to be a scientist but I cannot be able to.’ Joe (blind) expressed his frustrations in denial of opportunities to effectively participate and compete in sporting activities. He noted, ‘We don’t get training in athletics like others.’

Their *future plans* were expressed in terms of their aspirations towards joining a secondary school, university education and attainment of professional jobs. The three subcategories maintained equal dominance in this sphere. All the six males from this group indicated a desire to proceed to secondary school, attain university education before settling to the job of their choice. While five males from this group indicated a preference for joining a special secondary school only one learner (John) who was low vision, indicated that he preferred to join a day secondary school near his home.

Tim (low vision), and currently enrolled in an integrated programme, planned to join a special secondary school. His reasons were expressed as follows, ‘There at least you are the same.’ An almost similar sentiment was echoed by Joe (blind) who had previous experience at a regular school but had later transferred to a special school. In regard to his experiences at a regular school he observed, ‘Many times I found myself different from others.’ It is interesting to note that though with different experiences the two interviewees concur on reasons for preference of special school.

In citing a desire for higher education, John (low vision) observed, ‘I would like to go to secondary school, then to university.’ Joe (blind) on his part expressed a desire to train in the vocation of his choice stated, ‘I want to go to university and then learn to be a lawyer.’

In summing the analysis of the six male interviews, a variation is observed on individual factors of influence. Whereas three male learners cited nine factors of influence the rest varied between eight and six individual factors of influence. These reported individual influential factors from the perspective of the male learners with visual impairments may influence their future educational and vocational aspirations.

Female learners with visual impairments: Like their male counterparts the results of a cross case analysis of individual factors of influence on vocational aspirations as identified by the six female learners with visual impairments are presented in table 12. Although similar subcategories were identified, a variation was noted in the subcategories across gender.

Table 12: Individual factors of influence on vocational aspirations of six female learners with visual Impairments

Cases	Individual factors of influence														
	Personal motivation							Limitations	Future Plans						
	Academic achievement	Economic independence	Personal dream	Interaction	Recognition	Skills possessed	Determination	Vision	higher education	Professional job	Special secondary	Regular school	Skilled job	Terminate at primary	(Sum)
Irene**	X		X		X		X	X	X	X	X				(8)
Ruth**	X	X						X	X	X	X				(6)
Kate*	X	X						X	X	X		X			(6)
Lyn**		X				X		X					X	X	(5)
Pam*	X								X	X	X	X			(5)
Joy*				X							X		X		(3)
(Sum)	(4)	(3)	(1)	(1)	(1)	(1)	(1)	(4)	(4)	(4)	(4)	(2)	(2)	(1)	(33)

* Blind; **Low vision

Table 12 shows the results of the analysis of individual factors of influence from the perspective of the six female learners. In the *personal motivation* category females reported seven varied factors of influence. They include interaction, skills possessed, personal dream, academic achievement, recognition, economic independence and determination. The most dominant subcategory in this sphere was academic achievement and was cited by four female learners. Many expressed their academic achievement as a factor of influence. Irene (low vision) observed, 'I know even in the coming examination, I will make it.' Ruth (low vision) who aspired to be a Kiswahili teacher noted, 'In Kiswahili subject I get 70% and above.'

It was followed by economic independence which was cited by three females. Lyn (low vision) who hoped to be economically independent observed, 'I can make a lot of money by sewing clothes.' Ruth (low vision) on the other hand expressed that her

economic independence would improve her quality of life and that of her parents. She noted, ‘I hope to be driving my own vehicle and also help my parents.’

The rest of the subcategories in this sphere were noted by one learner across each one of them. Lyn (low vision) felt that she had the prerequisite skills for entry into her desired profession. She said, ‘I make my own clothes like the skirt I am wearing. Joy (blind) was interested in working in an interactive work environment noted, ‘I will socialise with many people and learn more.’ Irene (low vision) on her part aspired to be a lawyer expressed her personal dream as follows, ‘I have loved this job since I was a little child.’ She further expressed her determination in pursuing her dream job, ‘I get a lot of discouragement that I cannot be a lawyer because I am blind but I know I can.’

In the *limitations* category, vision features prominently as a factor of influence among female learners with visual impairment. Four females expressed their limitations on account of their sight in performance of certain activities. Lyn (low vision) expressed the challenges she was likely to meet in her aspired future vocation noted, ‘Threading the needle will be difficult.’ Ruth (low vision) on her part pointed at difficulties in farming activities. She observed, ‘Growing crops will be difficult.’

As regards *future plans* category, six subcategories were identified in the interviews. Educational aspirations were expressed in regard to termination of studies at primary school level, continuing to a regular or special secondary school and attainment of higher education. Vocational aspirations were expressed in relation to skilled work by some and professional jobs by others. Three subcategories reported equal dominance as they were each cited by four females. These were higher education, special secondary and professional job. Next in dominance was the regular school subcategory which was expressed by two females. Skilled job was cited by two females and only one expressed a wish to terminate studies at primary school level.

Out of the six female learners only one (Lyn) who is low vision, reported a desire to terminate her studies on completion of primary education. She observed, ‘After primary school, I want to become a tailor.’ Three learners who reported a desire to

proceed to a special secondary were of the opinion that their needs would be adequately met in such a setting (Irene, low vision; Ruth, low vision & Joy, blind). Pam (blind) expressed that she would not mind joining either special or regular secondary school. She was of the opinion that the decision would be made by the national selection exercise responsible for placement of primary school graduates to specific secondary schools. She noted, 'Wherever they will admit me I will go even if it is not a special school.'

Kate (blind), a learner in an integrated setting expressed a desire to pursue secondary education at a regular school. She was of the opinion that associating with others who are not disabled was helpful. She observed, 'They always encourage you to think you are not alone.' The wish to pursue higher education was expressed by four female learners while two learners in this group expressed a desire for skilled work.

In summing up a variation of individual factors of influence is observed. The reported factors of influence from the perspective of female learners with visual impairments may influence their future educational and vocational aspirations.

Comparison of individual factors of influence on vocational aspirations across degree of vision and gender

The comparison refers to the text in 5.1.2 and to the results as presented in tables 11 and 12.

Individual factors of influence across gender: Similarities were noted across gender in the three main categories identified and as presented in the previous section. However variations across gender were noted across subcategories. Specifically in the *personal motivation* category, the female learners reported seven subcategories compared to six that were expressed by their male counterparts. The male learners did not cite possession of skills and need for interaction as factors of influence. On the other hand, females did not report talent which was cited among their male counterparts.

In the *limitations* category the female learners did not record frustrated ambitions which was noted among their male counterparts. Another variation was observed on their *future plans*. While all the six male learners reported aspirations for higher education and attainment of professional jobs, this was not so for their female counterparts. Two females indicated an aspiration for skilled work and one of them had plans to terminate her studies at primary school level.

To sum up it was observed that male learners heavily clustered among certain subcategories. For example the male learners clustered heavily around recognition, economic independence, higher education and professional jobs. Their female counterparts, however, exhibited a scattered distribution across the various identified subcategories.

Individual factors of influence across degree of vision: Not much variation is noted among the twelve interviewees based on their degree of vision.

5.1.3 Comparison of environmental and individual factors within gender.

Male learners

All six male interviewees reported more factors of influence in the individual rather than environmental sphere (see tables 9 & 11). It indicates that the male learners in the present study are perhaps more influenced, by individual factors rather than environmental factors in relation to attainment of their vocational goals.

Female learners

A variation was noted among female interviewees as some reported more factors from environmental than individual sphere and vice versa (see tables 10 & 12). Four female learners (Irene, Ruth, Pam, & Kate) reported more factors of influence emanating from individual than environmental sphere. It may show that their vocational aspirations are more influenced by individual rather than environmental factors. However, Lyn and

Joy reported the contrary. It shows that the influence on their vocational aspirations perhaps stems more from environmental rather than individual factors.

5.2 Summary of the findings of Sub study 1 & 2

The aim of this study was to investigate the vocational aspirations of learners with visual impairments and further explore how their aspirations are influenced. The summary of the findings as derived from the two Sub studies are hereby presented:

1. Learners with visual impairments have relatively high educational and vocational aspirations (see section 4.1.1; chapter 5, table 8 & Appendix 7 table 7).
2. The vocational aspirations of learners with visual impairments are influenced by a variety of factors; they include both individual and environmental characteristics (see chapter 5).
3. A strong preference for special school rather than regular school setting is observed among the participants of the present study (see chapter 5, table 11 & 12 and Appendix 7 table 6).

5.3 Reflections on the findings

- A contradiction is noted among learners with visual impairments who aspire to work in an inclusive setting yet they prefer to school in segregated setting.
- A majority of the learners reported a high aspiration for university education yet for some this may be unrealistic compared to their actual academic achievement while at school.
- Learners who are low vision perform their day to day activities including reading and writing using sight. Yet during interviews they kept referring to themselves as blind. They also wished to pursue their secondary education in segregated special schools.
- All the interviewees used visual language when describing what they had observed, they would say, ‘I saw it on television,’ despite being blind.

- The age for learners with visual impairments in view of their current class may be inappropriate for some viewed from perspective of MOEST guidelines (see Appendix11). However many participants are 16 years and above (see Appendix 7 table 2). By implication some of them should ideally be studying at secondary school or university level.

6. Discussion of findings, conclusion and recommendations

This study investigated the vocational aspirations and factors that influence these aspirations among upper primary school learners with visual impairments. A discussion of the major findings of this study is addressed, followed by implications and recommendations.

6.1 Discussion

The discussion that follows takes into consideration the research questions guiding this study, findings obtained as well as experience. In addition attempts are made to draw parallels with previous studies and theory as reviewed in chapter 2. Furthermore where applicable the issue of differences across gender and degree of vision are also drawn into the discourse.

This study generated various findings, however only some aspects have been singled for discussion. These aspects are discussed under three sub headings; most aspired vocations, environmental factors of influence and individual factors of influence on aspirations of the learners.

6.1.1 Most aspired vocations by the learners

High status professional jobs: Detailed respondents reactions to this question are presented in Table 2 of chapter 4 and are based on findings of Sub study 1. Learners with visual impairments demonstrated their vocational aspirations across 17 varied types of jobs. Their responses on jobs that they aspire for indicates an inclination towards high status professional jobs. It should also be noted that a majority of the participants also demonstrated high educational goals (see Appendix 7 table 7). This was also confirmed by many of the interviewees in Sub study 2. High aspirations as observed by Schoon & Parsons (2002) among young people may lead many of them to aspire for professional or managerial career as seems to be supported by the findings of the present study. A gender bias was noted among some types of vocations that

attracted either male or female learners only. In addition some learners with low vision also demonstrated a bias for jobs that require sight in comparison to their blind counterparts.

The law profession had the most aspirants, followed by school teacher, university lecturer and doctor. A critical look at the jobs that they aspire shows that the government of Kenya is the largest employer of those in the aforementioned professions. It should also be noted that quite a number of persons with disabilities have found employment in the government sector. Perhaps in aspiring for these jobs, learners with visual impairments are also thinking of job opportunities that may be available. This is consistent with findings by Wong (2004), who noted that in making post school choices, university and vocational students with visual impairments in Britain gave consideration to practical goals of employment. In addition it was also observed that they were notably influenced by what they had seen as working or not working for others.

Another factor that may also contribute to the pattern of responses observed is that some of these professions are held in high esteem in Kenya. As mentioned in chapter 4 a recent survey conducted by Steadman Group (The Daily Nation, 2007, February 4) and published in a local daily revealed that teachers are still held in high regard. According to the study, teachers were perceived as the most trusted professionals with 90% of those polled stating so with a high degree of certainty. Doctors and nurses were a close second while media professionals emerged third and surprisingly ahead of religious leaders. Consequently highlight of such surveys via media may influence the vocational aspirations of learners studied towards attainment of higher status professional jobs. In the present study some of the interviewees cited media as an influential factor on their vocational aspirations.

Differences across gender: A slight gender variation in job aspirations among the population studied was noted albeit in a few learners. However gender bias was only noted among skilled jobs and not on professional jobs category. For instance female

learners denoted their aspiration for hairdressing and tailoring jobs. Their male counterparts expressed an aspiration for skilled practical activities like farming and driving. This gender variation may be attributed to traditional occupational roles which may be influenced by cultural or ethnic context in which the learners live. Studies have provided evidence for gender differences in terms of types of vocation (Weisner & Wilson-Mitchell as cited in Phillips & Imhoff, 1997; Abubakar, 2002 & Wamocho, 2003).

In the Kenyan context it may well be that these learners are exposed to the different roles that are played by their parents/ guardians in the process of raising them. Viewed from the perspective of Bronfenbrenner's theory, the influence of the microsystems is quite dominant in a developing child. Bronfenbrenner (1979:23) stresses that:

> 'We cannot understand an individual's behaviour without understanding the influence of the family on the behaviour of the child.'

However, as earlier noted the gender difference is not strong and perhaps it may be that since these learners are exposed to similar residential school experiences for a long period hence they influence each other in their thinking concerning possible future jobs. Secondly could it perhaps be that their impairment seems to override any gender roles that may be in existence in their community.

Differences across degree of vision: It should further be noted that those who aspired to be doctors were only learners with low vision. A possible explanation may be that learners who are blind took account of their visual limitation and hence indicated no interest in this field. Research literature documents that the inability to see may greatly impede one's efforts to effectively manipulate objects and the physical environment as well as hamper input of information via the visual sense (Gustafon -Pearce, Billet & Cecelja, 2005; Gray, 2005b; Johnsen, 2001 & Lowenfeld, 1981). Hence learners who are blind may avoid professions that demand constant utilisation of skills which they consider difficult to effectively execute. This is consistent with findings by Gray (2005a, 2005b) and Pierangelo & Giulani (2004) who posit that degree of vision is among factors that may influence the development of persons with visual impairments.

The presence of a disability as noted by Peterson & Gonzales (2000) may indeed deny individuals opportunities to engage in vocational exploration.

6.1.2 Environmental factors of influence

Expectations from significant others

Russell (2005) posits that all expectations have positive or negative outcomes based on the nature of expectation and whether it materialises or not. This serves as a pointer to the need for significant others to form realistic expectations for learners with visual impairments so as to increase their likelihood of being attainable.

Parental expectations: Learners in this study mostly reported positive expectations from their parents. This study further noted that learners with visual impairments also exhibited relatively high educational and vocational aspirations. Perhaps this may be attributed to expectations emanating from their parents or guardians. A study by Noonan et.al., (2004) found that highly achieving women with physical and sensory impairments enjoyed support and encouragement from their parents with some reporting more support from their mothers. The participants further acknowledged the influence of their families on their vocational development, hence lending evidence to the role of parental expectations. However, Kef et. al., (2000) found that Dutch adolescents with visual impairment perceived less support from their parents compared to their non disabled peers.

Thus, although learners in this study reported positive expectations from parents the same can become negative should these expectations fail to materialise. Research studies on parents of children with disabilities therefore recommend that there is need to help parents develop expectations that are likely to have positive outcomes so as to avoid disappointment for themselves and their children (Russell, 2005; 2003). Increased collaboration between parents and teachers as recommended by Rye (2001) is crucial for the well - being, social adjustments and learning of the child with special needs.

Teacher expectations: Learners in this study also reported positive expectations from their teachers. Burchardt (2004) noted that the impact of teachers on young disabled persons appears to be stronger than for the non disabled. In providing evidence for why children with disabilities may turn to teachers for more support, Skar & Tam (2001) observe that peer support is usually limited for this group of children leaving them to turn to adults in their environment. Hence the expectations of teachers especially for learners in residential special schools may positively or negatively influence the outcomes of their future aspirations.

Furthermore findings by Burchardt (2004) indicate that qualifications that children gain from school matter in relation to job market. Academic achievement is therefore viewed as a precursor to successful career (Shah, Trevors & Arnold, 2004). Some of the interviewees did note their academic achievement as an influential factor an indication that they are aware of necessity of academic qualification. Hence teachers should strive to actualise the academic potential of learners under their care. This would perhaps further serve to help them develop realistic expectations with a hope of favourable vocational outcomes for their learners. This may however not be possible if teachers as noted by Gillies, Knight & Baglioni (1998), believe that occupations suitable for people with visual impairments are limited, as they can easily pass the same to those in their care. In noting the importance of teacher expectations Safwat (2000) found that low teacher expectation subsequently affects a students' self – attitude and in the process also impedes the academic learning and achievement of the concerned individual.

Barriers

Learners with visual impairments identified various barriers to their attainment of vocational goals as reported in chapter 5. However only the barrier attributed to types of training offered in vocational centres' for learners with visual impairment is hereby discussed.

Type of training offered at vocational centres for learners with visual impairments

Data obtained in the sub studies revealed that the type of training offered at vocational centres for learners with visual impairments is rather inconsistent with their aspirations. In addition they perceive them as only appropriate for low academic achievers. This kind of 'labelling' amidst learners may act as a barrier to others who may wish to join such institutions. Although the interviewees did not voice it explicitly, there was evidence to suggest that enrolling in such centres' would be as a last resort. As Roy (blind) observed, 'You can't go there if you had good marks in school to go to high school, unless your parents lack money.'

It should be noted that in Kenya vocational centres for persons with disabilities are disability specific and in most cases are located near special schools. Hence there are those for persons with visual impairments as well as for other categories of disabilities. Those for learners with visual impairments offer courses such as weaving, knitting, carpentry, leather works to mention just a few. Songe (2004) who is visually impaired noted that their segregated nature tends to promote exclusion from social participation. He further recommended for diversification of training opportunities for learners with visual impairments and called for research that would help adapt and modify curriculum of training courses in applied sciences. The Republic of Kenya (1999) acknowledges that access to public technical institutions for learners with visual impairments is indeed limited.

Support for learners' views on vocational centres is provided by Snell & Brown (2000) who caution against directing students with disabilities to existing vocational centres. Their argument is that such placement is primarily done because those planning for such a population, lack a vision of pushing the delivery system. Gill (2005) in highlighting the dangers of sheltered workshops, postulated that they are not only limiting but also exploitative in nature. These observations and concerns voiced by learners with visual impairments and others should perhaps serve as a wakeup call to planners of vocational education in Kenya.

6.1.3 Individual factors of influence

Personal motivation: Learners who participated in this study reported varied intrinsic and extrinsic motivational factors that impel them towards attainment of higher educational and vocational aspirations. They stemmed from determination, abilities, talents, and interest; inter alia. For instance Irene (low vision) noted, 'I have loved this job since I was a child'. Tim (low vision) noted, 'I am the last born and I want to help my parents. In highlighting the role of motivation Eccles & Wigfield (2002), postulate that it is difficult to understand students' motivation without understanding their contextual experiences. Their observations allude to Bronfenbrenner's theory (1979,2005) that stresses the direct and indirect role of contextual factors on a developing individual. Further support for the same is also embraced in Burchardt's (2004) framework for understanding aspirations and outcomes.

A determination to succeed is well exemplified by Nemeth (1996) whose vocational aspirations were tampered with various challenges related to his blindness. He observed, 'My career was delayed at least five to six years. I hope my experience will be of benefit to other blind people who seek mathematics teaching as an honourable and achievable goal.' A study by Noonan et. al., (2004) of high achieving women with physical and sensory impairments reported that it was their determination to succeed that helped them overcome overwhelming challenges.

Taking note of the background of participants as depicted in table 9 (chapter 5), some of them are way above the MOEST recommended appropriate age for classes that they currently occupy (see Appendix 11). This is consistent with findings by Burchardt (2004) and observations made by the Republic of Kenya (2005a) that their education period is likely to last longer. It could be that perhaps their high educational and vocational aspirations help them develop patience or a kind of resilience in the realisation that their progress through formal education may take awhile. The same is noted especially for one learner (Joe – blind) who had to be out of school for about 4 years due to loss of sight and only rejoined after rehabilitation. For some of them a delay in school progress have seen their younger siblings either catching up with them or worse overtaking them and completing their education much earlier. As noted by

Republic of Kenya (2005a), many indeed become adults before they complete their studies.

Future plans

The interviewees reported their aspiration to continue to secondary education with only one opting to exit at primary school level. The rest planned to continue to at least college or university education before settling to jobs of their choice.

Preference for special school: Data obtained from the two sub studies indicate that learners with visual impairments prefer to continue learning in segregated special institutions. Basically they felt that special schools were better equipped to meet their academic, social and emotional needs. They noted that teachers in special institutions have training in special needs education and that the schools have sufficient learning resources that met their needs. For instance Joe (blind), who had experience in a regular school before transferring to a special school, observed, 'Many times I found myself different'. Tim (low vision) on the other hand currently receiving education at a regular school aspired for a special secondary school observed, 'There at least you are the same.' Interestingly these two learners though with different experiences seem to concur on reasons for preference of special school. This may indicate that their need for 'sameness', acceptance and bonding with others through friendship of equal partners may serve to endear them to special institutions.

Similar findings have been reported by Gray (2005b); Shah (2005) and Shah, Travers & Arnold (2004). Respondents who were studied considered special schools safe, supportive and with appropriate resources. In an attempt to explain why disabled students have positive attitude towards special schools, Shah, Travers & Arnold (2004) proposed that special schools provide unique opportunities for their learners to develop dreams and aspirations without the restrictions of disabling environment.

While conducting the interviews a tendency by those with low vision to refer to themselves as blind was noted. This was despite the fact that their vision was good enough for them to learn using print and to operate in their environment primarily as

seeing persons. For instance John (low vision) noted, 'You cannot be an engineer if you are not seeing'. Irene (low vision) also reported, 'They say I cannot become a lawyer because I am blind.' Could it be that the sense of identity among learners with visual impairments studied is so strong that they view themselves with 'sameness'? These findings may in a way perhaps explain why many of them aspire for more or less similar types of vocations. Shah, Travers & Arnold (2004) lend evidence to formation of identity in special schools and Murugami (2002) also found that learners with physical and sensory impairments enrolled in special schools had a positive self concept irrespective of their home background. However a study by Mrug & Wallender (2002) found contrary results.

This study further noted that, although learners wish to continue learning in special schools, they also envisage themselves working with others who are not necessarily disabled (see chapter 4, table 6). Viewed from the perspective of inclusion in school and society, it may be observed that a lot needs to be done to provide relatively supportive environment for all consumers. For inclusive education to be successful the beneficiaries should at least feel that it has the possibility of adequately meeting their learning, social and emotional needs with equal strength. As noted by Kef et. al., (2000: 87), a strong movement towards inclusion is yet to succeeded in effectively providing adolescents with visual impairments with personal networks similar to their able bodied peers.

6.1.4 Findings based on the theoretical perspective of the study

As discussed in chapter 2, Bronfenbrenner (1979, 2005) stresses the need to understand the developing person in the context of indirect and direct influences of the four 'nested concentric structures', which is the micro-, meso- , exo- and macrosystems. He points out that a child develops abilities, skills and competencies based on interactive experiences with the four systems. These systems are to be found in all societies but may operate slightly differently on account of cultural factors.

At individual level it was noted that the presence of a visual impairment seems to strongly influence their preference for special school. In addition the findings indicate

that it is an important consideration when thinking of choice of future job. Other factors that influenced the participants include gender to a small extent, personal determination and motivation among others as described in detail in chapter 5.

At interpersonal level participants reported various influences from parents/guardians, teachers and peers in relation to their future educational and vocational goals. From the results it was deduced that significant others play a role in shaping their aspirations and have made learners realise the importance of education and getting a salaried job in the future. Apart from encouraging remarks from their teachers, these learners also see the effort their own teachers are putting by enrolling for further education courses through flexible programs introduced in the country. The current scenario is that more and more professionals in the field of education are pursuing higher education to refresh their skills in the changing world. Viewed from the perspective of Bronfenbrenner, it may be observed that this trend may well have an impact on their learners who too aspire for higher education.

At organisational level limited opportunities for technical and other colleges for these learners may perhaps contribute to the pattern where most wish to join university. This may not be a realistic expectation especially for the academic underachievers. In this instance the indirect effect of systems theory can be seen; where a gap in type of training offered in vocational centres is affecting learners who are enrolled in a relatively well functioning school system. This is consistent with observations made by Kazak (1986) that events at a different setting may reverberate to affect the developing child. It also possibly serves as a pointer to the need to review policy governing vocational training for disabled persons so as to allow the systems to effectively support each other and subsequently the developing learner who is visually impaired.

At community level it may be noted from the findings that participants aspire for high professional status job which may be as a result of media reports concerning jobs that are viewed with high regard in the community. It could also be that employment opportunities are higher in the public sector hence shaping their aspirations.

Ochs & Roessler (2001) posit that for learners with disabilities to achieve educationally and vocationally, they must be fully equipped with skills, self confidence and positive career – related intentions that enable other students to succeed. Thus, though the vocational aspirations of learners studied were high perhaps due to support from the microsystem (significant others), other systems in the broader societal setting should act in harmony to ensure that their aspirations have the possibility of being realised.

6.2 Concluding remarks

This study investigated the vocational aspirations of upper primary school learners with visual impairments in Kenya. It focused on the following research sub questions:

1. What kinds of vocations do learners with visual impairments mostly aspire for?
2. What factors influence the vocational aspirations of learners with visual impairments?
3. How do factors identified through sub question 2 (above) influence their vocational aspirations?

Findings from the present study reveal that learners with visual impairments have relatively high educational and vocational goals. This was confirmed by results of Sub study 1 & 2. Some of the issues that were followed up in Sub study 2 based on findings of Sub study 1 include expectations from significant others, school factors, limitations imposed by visual impairment and source of vocational information in relation to attainment of future educational and vocational goals.

The participants seem to aspire for high status professional jobs in the society. Their vocational aspirations were specifically noted for the field of law, teaching at school and university, and medicine. It should be noted though, that professional jobs may only be feasible for academic achievers. Transition to secondary school for Kenyan learners may not be without challenges as posited by Republic of Kenya (2005b).Hence a lot needs to be done to assist those that may not meet stipulated academic achievement criteria to develop vocational

aspirations that are consistent with their interest and abilities.

Findings obtained further support the influences of individual and environmental factors on one's aspirations. Individual factors such as motivation and impairments were seen to have an impact on their future aspirations. Similar observations were noted from environmental factors such as expectations from significant others and barriers in the environment that included societal influences. It is important to realise that all these factors of influences have the possibility of being stimulating and limiting (Esbroeck, Tibos & Zaman, 2005).

Other interesting findings were also highlighted in 5.3. I have tried to follow up some of these reflections in the discussion. However, further exploration may be necessary to expand knowledge about these reflections in relation to type of educational setting and degree of vision.

6.3 Implications for further research

In view of the findings in this study, several areas for further research emerged though only a few are highlighted below:

- This study only examined the vocational aspirations of learners with visual impairments in primary school setting. Future researchers may wish to extend it to include those in secondary school and higher institutions of learning.
- There is need for studies on vocational centres for disabled persons to assess their viability in the changing world.
- A longitudinal study could be instituted to follow up the study participants with a view of assessing whether their vocational aspirations remain stable over time.
- The issue of identity formation of learners with visual impairments while in special schools may also make an interesting study.

6.4 Recommendations

The main findings were outlined and discussed in the previous section of this chapter. The findings obtained may be of importance to individuals in the Kenyan society, more specifically those in the field of special needs education and vocational training. Some of the findings may also be of relevance to other academicians and researchers in the area of vocational development and counselling in Kenya and abroad. Based on the outcome of this study some suggestions, relating to possible changes are put forth. I therefore make the following recommendations:

1. Parents and teachers should work in collaboration to guide those under their care in relation to job choices. In doing so they should take into account the learners interest, academic achievement and other abilities. They should then correlate these factors to relevant job factors such as employment opportunities, work ethics and values, expected salary among other factors.
2. Although schools largely focus on development of academic skills, learners require being aware of options outside the academic arena. Introduction of vocational counselling programmes related to realities of job market and demands should be introduced to address job choice challenges.
3. Laws and policies that are in existence and address the welfare of persons with disabilities should be made public and implemented as soon as they are formulated and approved so that the consumers reap the benefits without unnecessary delay.
4. Inclusion calls for learners with disabilities to be educated alongside others. It may be necessary to review the role of special schools within inclusive education to establish what really works or does not work, from the perspective of the disabled learners.
5. Training offered in public technical and vocational colleges in Kenya should be developed in a manner that allows students with disabilities to enrol should they wish to.
6. Training offered in vocational centres for disabled persons should at least reflect

the society's job market demands, if not the global trends in the world of work.

7. Negative attitudes that have continued to limit opportunities for persons with disabilities in relation to educational and vocational choices as well as employment opportunities require to be addressed.

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Appendices

Appendix 1: A Letter of Introduction from the UIO

UNIVERSITY OF OSLO

Appendix 1: Introduction letter from university of Oslo

Department of Special Needs Education

P.O.Box 1140, Blindern
N-0318 Oslo
NORWAY

Visiting address:
Helga Eng's Building
3rd and 4th floor

Telephone: + 47 22 85 80 59
Telefax: + 47 22 85 80 21

FACULTY OF EDUCATION

Your ref:
Our ref: 13/06 BHJ/db
Contact person: Denese Brittain d.a.brittain@isp.uio.no

Date: June 21. 2006

TO WHOM IT MAY CONCERN:

This is to certify that **GITANG'A, Margaret Mumbi,** date of birth 06.05.1964, is a full-time student pursuing a course of study at the Department of Special Needs Education at the University of Oslo, Norway, leading to the degree of Master of Philosophy in Special Needs Education (M. Phil. SNE).

This is a continuous two-year programme run on the "sandwich" principle, which involves periods of study and field work/research in both Norway and the home country. The student has concluded the initial 11-month period in Norway and will be returning to the home country in July 2006 to continue full-time studies/research until 1 January 2007 when s/he returns to Norway for the final part of the degree. The period of study will be completed at the end of May 2007

The main responsibility for supervising the research, developmental work and thesis remains with the Department of Special Needs Education, University of Oslo, Norway. However, we would kindly request that the relevant authorities give the student the access required to the schools and educational establishments necessary in order to undertake field work and research. We would also be most grateful for any assistance that is afforded to the student which enables her/him to carry out this work, particularly the use of facilities such as access to telephone, fax, e-mail, computer services and libraries at the various educational establishments.

Yours sincerely

Associate Professor Berit Helene Johnsen (dr.scient.)
Academic Head of International Master's Programme
Department of Special Needs Education

Department of Special Needs Education
Faculty of Education
University of Oslo, Norway

Institutt for spesialpedagogikk
Det utdanningsvitenskapelige fakultet
Universitetet i Oslo
Norge

Appendix 2: A Letter of Authority to Conduct Research

Appendix 2: Letter of authority to conduct research

MINISTRY OF SCIENCE & TECHNOLOGY

Telegrams: "SCIENCE TEC", Nairobi

Fax No.
Telephone No: 318581
When replying please quote
MOEST 13/001/36C 489/2

REPUBLIC OF KENYA

JOGOO HOUSE "B"
HARAMBEE AVENUE
P.O. Box 60209-00200
NAIROBI
KENYA

9th August 2006

Margaret M. Githang'a
University of Oslo
P.O. Box 43844
NAIROBI

Dear Madam

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on ***'Vocational Aspirations of Upper Primary School Learners with Visual Impairments in Four Provinces of Kenya'***

I am pleased to inform you that you have been authorized to carry out research in all Provinces in Kenya for a period ending 31st January 2007.

You are advised to report to the Provincial Commissioners and the Provincial Directors of Education Nairobi before embarking on your research project.

On completion of your research, you are expected to submit two copies of your research report to this office.

Yours faithfully

B. O. ADEWA
FOR: PERMANENT SECRETARY

Copy to:
The Provincial Commissioners
Nairobi

The Provincial Directors of Education
Nairobi

Appendix 3: Questionnaire: Vocational Aspirations 1

Instructions[5]

1. Answer the questions below honestly; remember there is no right or wrong answer.
2. Please complete each section by reading the directions given carefully.
3. Write all your answers by **circling** / the letter of your choice and **filling in** the blank spaces where provided (Write all your answers in the separate sheet of paper provided).
4. All the answers you write **will not be shown** to anyone else. They will be treated confidentially.

Background Information

1. Serial Number**:**_____

2. Gender: (Please choose one only)

A. Male

B. Female

3. Age:_____

4. Religion:_____

5. What class did you first join when you reported to this school?

Class:_____

Home and family background

6. Does your family live in rural or urban area? (Please choose one only)

A. Urban

B. Rural

7. Do you live with your parents or guardian during the school holidays? (Please choose one only)

A. Parents

B. Guardian

[5] Instructions above have been merged in presentation of Appendix 3 & 4 to reflect the two groups; one group (low vision) filled responses in the form provided while the other (blind) answered on separate sheets of Braille paper.

8. If guardian, indicate his or her highest level of education. (Please choose one only).

A. Primary

B. Secondary

C. College

D. University

E. Do not know

F. No formal education

9. What does your guardian do to earn money? If you have two guardians please write what they both do.

_____

_____

10. If parents what's your mother's highest level of education? (Please choose one only).

A. Primary

B. Secondary

C. College

D. University

E. Do not know

F. No formal education

11. If parents what's your father's highest level of education? (Please choose one only).

A. Primary

B. Secondary

C. College

D. University

E. Do not know

F. No formal education

12. What does your mother do to earn money?

_____

_____

13. What does your father do to earn money?

_____

_____

14. Mention any **two** activities that you like doing during the school holidays. (Please start with the most important one.)

A._____

B._____

Educational Aspiration

15. Which are your three favourite subjects in school? Please write the most favourite next to letter A. The next favourite next to letter B and continue until you finish C.

A._____

B._____

C._____

16. What makes you like the three subjects you have mentioned in question 15?

_____

_____

17. After you complete primary education, would you like to: (Please choose one only).

A. Continue with studies in a special secondary school for learners with visual impairments.
B. Continue with studies in an ordinary secondary school.
C. Join a vocational training institution
D. Do a job that requires no further education
E. Do not know
F. Other

If other, please describe_____

18. What do you think is likely to be your highest level of education? (Please choose one only).

A. Primary
B. Secondary
C. College
D. University
E. Do not know

Vocational Aspirations

19. After you complete primary education, would you like to do a job (work): (Please choose one only).

A. That requires no training at all
B. That requires further education and training
C. I have not thought about any job yet
D. I do not know
E. Other

If other, please describe_____

20. List any three kinds of job (work), which you would like to do after your formal education. Next to letter A write the name of the job you think you would like best. Next to letter B write the name of the job, which is your second best, and continue until you have completed C.

A. _____

B._____

C._____

21. What are some of the good things (rewards) you could get from the jobs you have mentioned in question 19. (Please start with the most important one)

A._____

B._____

22. Is there anything else you would like to tell me that would help me learn about how young people with visual impairments are thinking about work after completing school?

23. Are you willing to further meet me in an interview; to talk about the job you wish to do in the future? (Please choose one only).

A. Yes

B. No

THANK YOU FOR YOUR COOPERATION!

Appendix 4: Questionnaire: Vocational Aspiration 2

Instructions

1. Answer the questions in this section honestly; remember there is no right or wrong answer.
2. The answers you write will not be shown to anyone else. They will be treated confidentially.
3. Read the listed statements carefully and then **write down/circle** the letter that best describes your feelings. The four letters, A, B, C & D show how much you agree or disagree with the listed statement in the following manner:

   A = Strongly Agree

   B = Agree

   C = Disagree

   D = Strongly Disagree

   Please write down/circle **ONLY ONE** letter for each listed statement.

Personal Information

Serial number: _____

Items

1. I find school life interesting. (Please choose **One** letter only)

A. B. C. D.

2. I can tell when I am doing good work at school. (Please choose **One** letter only)

A. B. C. D.

3. If I really try, I can do well in the school tests. (Please choose **One** letter only)

A. B. C. D.

4. There is no way a student like me can get good marks in the school tests. (Please choose **One** letter only)

A. B. C. D.

5. I find it hard to move around in places I know well. (Please choose **One** letter only)

A. B. C. D.

6. I easily move around in places I know well. (Please choose **One** letter only)

A. B. C. D.

7. I often do things that I really want to do. (Please choose **One** letter only)

A. B. C. D.

8. When I am with my friends in school, I usually do what they want to do. (Please choose **One** letter only)

A. B. C. D.

9. In my free time, I often have nothing much to do. (Please choose **One** letter only)

A. B. C. D.

10. I hope to become a leader in my future career. (Please choose **One** letter only)

A. B. C. D.

11. Being a leader in my chosen career is not important to me. (Please choose **One** letter only)

A. B. C. D.

12. Once I finish my primary school education, I see no need to continue to secondary school. (Please choose **One** letter only)

A. B. C. D.

13. I think I would like to get university training in my chosen career. (Please choose **One** letter only)

A. B. C. D.

14. The school gives me enough information on jobs that I can do in the future. (Please choose **One** letter only)

A. B. C. D.

Scoring key

A = Strongly Agree

B= Agree

C= Disagree

D= Strongly Disagree

15. I sometimes have dreams about my future job that cannot become true. (Please choose **One** letter only)

A. B. C. D.

16. I would like to work with other people who are not visually impaired. (Please choose **One** letter only)

A. B. C. D.

17. Workers with visual impairments can be just as successful as others who are not visually impaired.(Please choose **One** letter only)

A. B. C. D.

18. The opportunities for employment for persons with visual impairments are few. (Please choose **One** letter only)

A. B. C. D.

19. I often discuss the job I would like to do with my parents/ guardians. (Please choose **One** letter only)

A. B. C. D.

20. The views of my parents/ guardians on the choice of my future job are not important to me. (Please choose **One** letter only)

A. B. C. D.

Scoring key

A = Strongly Agree

B= Agree

C= Disagree

D= Strongly Disagree

21. My parents/ guardians do not think I perform well at school. (Please choose **One** letter only)

A. B. C. D.

22. I often discuss the job I would like to do with my teachers(Please choose **One** letter only)

A. B. C. D.

23. The views of my teachers on the choice of my future job are not important to me. (Please choose **One** letter only)

A. B. C. D.

24. I often discuss the job I would like to do with my friends. (Please choose **One** letter only)

A. B. C. D.

25. My friends will help me choose the job I would like to do in the future(Please choose **One** letter only)

A. B. C. D.

Scoring key

A = Strongly Agree

B= Agree

C= Disagree

D= Strongly Disagree

THANK YOU FOR YOUR COOPERATION.

Appendix 5: The Interview Guide

Date of Interview: _____ Time: _____

Introduction

- ✓ Greetings and establishment of rapport
- ✓ A brief on the importance follow up of the study through interview
- ✓ Assurance on confidentiality and anonymity

Confirmation of background information of the interviewee

- ✓ Gender
- ✓ Age
- ✓ Degree of vision
- ✓ Class

Influence of school factors on ones aspirations

1. What do you hope to do after you complete your primary school education?
2. What are some of your favourite subjects in school?
3. What makes you like the subjects you have just mentioned?
4. How do you travel to your home when the school closes?
5. How helpful have your teachers been in helping you with your school work?
6. Who do you generally talk to about important things in your life while here at school?

Influence of family on ones aspirations

7. Who pays your school fees?
8. What do your parents/ guardians think that you should do after you complete your primary school education?
9. Who do you generally talk to about important things in your life while at home?
10. How helpful have your parents been in planning your future?
11. How helpful have other members of the family been in planning your future?

Choice of vocations

12. What are some kinds of jobs that you think you would like to do in the future?
13. Could you tell me some things that you do well that have made you like the jobs you have just mentioned?

14. What are some kinds of jobs that you think you would not like to do?
15. What do you dislike about these particular jobs?

Influence of other factors on ones vocational aspirations

16. Which jobs do you think you cannot do because of your sight?
17. How do you get information about the different types of jobs that you can do?
18. What do you think your close friends will be doing after they complete their primary school education?
19. What do your friends say to you when you tell them about the jobs you would like to do in the future?
20. Could you tell me something about the training offered at the vocational centres for people with visual impairments?
21. Which kinds of problems do you think you will meet when looking for a salaried job?
22. If you were fully sighted, what kinds of jobs would you really like to do?
23. What do you hope to be doing in the next six years?
24. Is there anything else that you would like to add?

Concluding remarks

- ✓ **Thanking the interviewee**
- ✓ **Reassurance of confidentiality and anonymity**

Appendix 6: Cronbach Reliability Analysis

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
ITM_1	76.3056	82.7222	.4335	.7522
ITM_2	76.0556	88.7574	.2081	.7651
ITM_3	75.7222	85.3020	.5629	.7524
ITM_4	75.8889	85.9311	.3141	.7599
ITM_5	76.3194	83.4599	.3946	.7547
ITM_6	76.1528	82.4975	.4749	.7501
ITM_7	76.9306	87.5867	.1783	.7677
ITM_8	76.3889	91.0861	-.0038	.7774
ITM_9	76.4583	86.3081	.2427	.7640
ITM_10	76.0417	83.0827	.4601	.7514
ITM_11	76.1250	85.2940	.2943	.7609
ITM_12	76.0833	82.3028	.4297	.7521
ITM_13	75.8611	83.1072	.5557	.7484
ITM_14	76.4861	83.5209	.4100	.7540
ITM_15	77.0556	95.4898	-.2188	.7933
ITM_16	76.3056	84.7222	.3620	.7570
ITM_17	76.0556	85.3490	.3249	.7591
ITM_18	77.0139	90.2674	.0054	.7821
ITM_19	76.1806	84.2627	.4227	.7541
ITM_20	76.1806	83.0233	.4548	.7515
ITM_21	76.3750	82.4912	.4297	.7523
ITM_22	76.6250	86.2658	.2620	.7627
ITM_23	76.3472	81.1031	.4929	.7479
ITM_24	76.1389	86.9100	.2665	.7624
ITM_25	77.2361	88.0139	.1201	.7728

Reliability Coefficients

N of Cases = 72.0 N of Items = 25

Alpha = .7680

Appendix 7: Background information of survey participants.

Table of composition of study sample for survey

Province	School Type	Current class	Gender	Degree of Vision		Total Per school
				Totally Blind	Low vision	
A	Integrated 1	8	Males		1	1
	Integrated 2	7	Females	1		1
B	Special	8	Males	10	1	34
			Females	2	5	
		7	Males	2	6	
			Females	4	4	
C	Special	8	Males	5	2	23
			Females	1	4	
		7	Males	1	4	
			Females	1	5	
D	Special	8	Males	2	1	20
			Females	4	2	
		7	Males	3	3	
			Females	2	3	
Total				38	41	79

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	13 - 15 yrs	31	39.2	39.2	39.2
	16 - 18 yrs	38	48.1	48.1	87.3
	19 - 21 yrs	10	12.7	12.7	100.0
	Total	79	100.0	100.0	

Class first joined

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Nursery	38	48.1	48.1	48.1
	std 1 - 3	24	30.4	30.4	78.5
	Std 4 - 6	13	16.5	16.5	94.9
	std 7 - 8	4	5.1	5.1	100.0
	Total	79	100.0	100.0	

Parents location					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Urban	27	34.2	34.2	34.2
	Rural	52	65.8	65.8	100.0
	Total	79	100.0	100.0	

Person child lives with					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Parent	66	83.5	86.8	86.8
	Guardian	10	12.7	13.2	100.0
	Total	76	96.2	100.0	
Missing	System	3	3.8		
Total		79	100.0		

Learners aspiration after primary education					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Do not know	1	1.3	1.3	1.3
	do job that needs no further education	2	2.5	2.6	3.9
	join vocational training college	5	6.3	6.5	10.4
	continue studies in ordinary secondary	8	10.1	10.4	20.8
	continue studies in special school	61	77.2	79.2	100.0
	Total	77	97.5	100.0	
Missing	System	2	2.5		
Total		79	100.0		

Aspired education level by learners with visual impairments					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	do not know	1	1.3	1.3	1.3
	primary	2	2.5	2.5	3.8
	secondary	3	3.8	3.8	7.6
	college	7	8.9	8.9	16.5
	university	66	83.5	83.5	100.0
	Total	79	100.0	100.0	

willing to be interviewed					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	14	17.7	17.7	17.7
	yes	65	82.3	82.3	100.0
	Total	79	100.0	100.0	

Appendix 8: Results of Likert based scale (19 items)

'I find school life interesting'

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	8	10.1	10.3	10.3
	Disagree	8	10.1	10.3	20.5
	Agree	18	22.8	23.1	43.6
	Strongly Agree	44	55.7	56.4	100.0
	Total	78	98.7	100.0	
Missing	System	1	1.3		
Total		79	100.0		

'I can tell when I am doing good work at school'

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	1	1.3	1.3	1.3
	Disagree	5	6.3	6.4	7.7
	Agree	30	38.0	38.5	46.2
	Strongly Agree	42	53.2	53.8	100.0
	Total	78	98.7	100.0	
Missing	System	1	1.3		
Total		79	100.0		

'If I really try I can do well in school tests'

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	4	5.1	5.2	5.2
	Disagree	1	1.3	1.3	6.5
	Agree	7	8.9	9.1	15.6
	Strongly Agree	65	82.3	84.4	100.0
	Total	77	97.5	100.0	
Missing	System	2	2.5		
Total		79	100.0		

‘There is no way a student like me can get good marks at school’

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	6	7.6	7.7	7.7
	Agree	2	2.5	2.6	10.3
	Disagree	6	7.6	7.7	17.9
	strongly disagree	64	81.0	82.1	100.0
	Total	78	98.7	100.0	
Missing	System	1	1.3		
Total		79	100.0		

‘I find it hard to move around in places I know well’

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	8	10.1	10.3	10.3
	Agree	12	15.2	15.4	25.6
	Disagree	18	22.8	23.1	48.7
	strongly disagree	40	50.6	51.3	100.0
	Total	78	98.7	100.0	
Missing	System	1	1.3		
Total		79	100.0		

‘I easily move around in places I know well’

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	8	10.1	10.3	10.3
	Disagree	4	5.1	5.1	15.4
	Agree	19	24.1	24.4	39.7
	Strongly Agree	47	59.5	60.3	100.0
	Total	78	98.7	100.0	
Missing	System	1	1.3		
Total		79	100.0		

'I often do things that I really want to do'

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	14	17.7	17.9	17.9
	Disagree	20	25.3	25.6	43.6
	Agree	29	36.7	37.2	80.8
	Strongly Agree	15	19.0	19.2	100.0
	Total	78	98.7	100.0	
Missing	System	1	1.3		
Total		79	100.0		

'When I am with my friends at school, I usually do what they want me to do'

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	6	7.6	7.7	7.7
	Agree	13	16.5	16.7	24.4
	Disagree	26	32.9	33.3	57.7
	strongly disagree	33	41.8	42.3	100.0
	Total	78	98.7	100.0	
Missing	System	1	1.3		
Total		79	100.0		

'In my free time, I often have nothing much to do'

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	9	11.4	11.5	11.5
	Agree	11	13.9	14.1	25.6
	Disagree	23	29.1	29.5	55.1
	strongly disagree	35	44.3	44.9	100.0
	Total	78	98.7	100.0	
Missing	System	1	1.3		
Total		79	100.0		

'Being a leader in my chosen career is not important to me '

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	8	10.1	10.3	10.3
	Agree	6	7.6	7.7	17.9
	Disagree	11	13.9	14.1	32.1
	strongly disagree	53	67.1	67.9	100.0
	Total	78	98.7	100.0	
Missing	System	1	1.3		
Total		79	100.0		

'Once I finish my primary education, I see no need to continue to secondary school'

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	11	13.9	14.1	14.1
	Agree	3	3.8	3.8	17.9
	Disagree	6	7.6	7.7	25.6
	strongly disagree	58	73.4	74.4	100.0
	Total	78	98.7	100.0	
Missing	System	1	1.3		
Total		79	100.0		

'I think I would like to get university training in chosen career'

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	4	5.1	5.1	5.1
	Disagree	3	3.8	3.8	9.0
	Agree	7	8.9	9.0	17.9
	Strongly Agree	64	81.0	82.1	100.0
	Total	78	98.7	100.0	
Missing	System	1	1.3		
Total		79	100.0		

'The school gives me enough information on jobs that I can do in the future'					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	7	8.9	9.0	9.0
	Disagree	13	16.5	16.7	25.6
	Agree	25	31.6	32.1	57.7
	Strongly Agree	33	41.8	42.3	100.0
	Total	78	98.7	100.0	
Missing	System	1	1.3		
Total		79	100.0		

'I sometimes have dreams about my future job that cannot be true'					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	23	29.1	29.5	29.5
	Disagree	12	15.2	15.4	44.9
	Agree	27	34.2	34.6	79.5
	Strongly Agree	16	20.3	20.5	100.0
	Total	78	98.7	100.0	
Missing	System	1	1.3		
Total		79	100.0		

'The opportunities for employment opportunities for persons with V.I are few'					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	23	29.1	29.5	29.5
	Agree	16	20.3	20.5	50.0
	Disagree	12	15.2	15.4	65.4
	strongly disagree	27	34.2	34.6	100.0
	Total	78	98.7	100.0	
Missing	System	1	1.3		
Total		79	100.0		

'I often discuss the job I would like to do with my parents/ guardian'

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	6	7.6	7.9	7.9
	Disagree	7	8.9	9.2	17.1
	Agree	23	29.1	30.3	47.4
	Strongly Agree	40	50.6	52.6	100.0
	Total	76	96.2	100.0	
Missing	System	3	3.8		
Total		79	100.0		

'My parents /guardians do not think I perform well at school'

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	9	11.4	11.5	11.5
	Agree	12	15.2	15.4	26.9
	Disagree	17	21.5	21.8	48.7
	strongly disagree	40	50.6	51.3	100.0
	Total	78	98.7	100.0	
Missing	System	1	1.3		
Total		79	100.0		

'I often discuss the job I would like to do with my teachers'

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	8	10.1	10.3	10.3
	Disagree	15	19.0	19.2	29.5
	Agree	30	38.0	38.5	67.9
	Strongly Agree	25	31.6	32.1	100.0
	Total	78	98.7	100.0	
Missing	System	1	1.3		
Total		79	100.0		

'My friends will help me choose the job I would like to do in the future'					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	25	31.6	32.5	32.5
	Agree	19	24.1	24.7	57.1
	Disagree	16	20.3	20.8	77.9
	strongly disagree	17	21.5	22.1	100.0
	Total	77	97.5	100.0	
Missing	System	2	2.5		
Total		79	100.0		

Appendix 9: Preliminary analysing key for interview data

The following categories were identified in Jim's (blind) interview data.

The categories, their descriptions and formulated guiding questions are presented below:

1. *Expectations*: This category examines how the expectations of parents, teachers, peers and others who often interact with the learner with visual impairment can influence their educational and vocational aspirations.

Guiding question for category I

In what ways are educational and vocational aspirations of learners with visual impairments influenced by significant others?

2. *Motivation:* Individual characteristics pertaining to intrinsic and extrinsic motivation are examined in relation to influence on ones educational and vocational aspirations.

Guiding question for category 2

How does personal motivation influence the vocational aspirations of learners with visual impairments?

3. *Limitations*: The effects imposed by visual impairment and other factors are examined in terms of vocational aspirations of learners with visual impairments.

Guiding question for category 3

In what ways do the limitations imposed by visual impairment and other factors influence the learners vocational aspirations?

4. *Barriers:* It examines how the general views of the society towards those who have visual impairments may impede the vocational aspirations of such learners as well as their job opportunities. It notes how the attitude of society towards successful or

individuals with ‘big jobs’, may influence the learners vocational aspirations. This attitude may also contribute to learners’ perception of training offered in their vocational training centres.

Guiding question for category 4

In what ways do barriers in the society as perceived by learners with visual impairments influence their vocational aspirations?

Emerging categories

5. *Frustrated ambitions*: It examines how the individual may experience frustration due to ambitions that are unlikely to be realised.

Guiding question for category 5

In what ways do individual and environmental factors frustrate the ambitions of learners with visual impairments?

6. *Personal values/ recognition*: An individual’s deeper seated values or principles he or she has in life may also influence the vocational aspirations. This may be observed through expression of a strong desire to hold powerful and influential positions in the society.

Guiding question for category 6

How do personal values influence the vocational aspirations of learners with visual impairments?

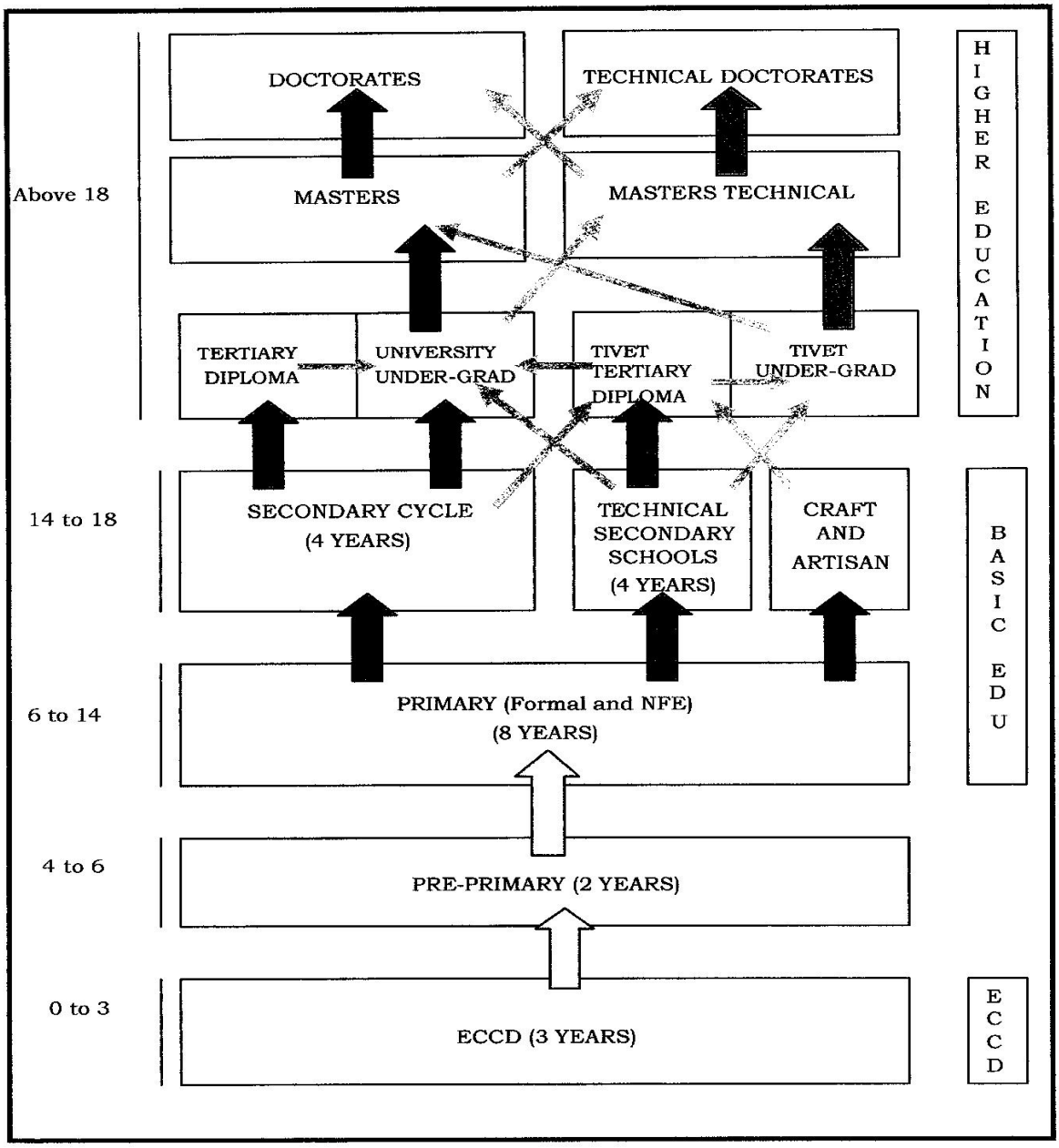
Appendix 10 Sample analysis of interview data

Jim (Blind)		
Category	**Aspects**	**Quotes**
1. Expectations	✓ Guardians	'You know my guardians advise me to go on reading more and more…they want me to go to university be an important person…'
	✓ Teachers	'Even teachers here…they tell us work hard…'
	✓ Peers	'They have told me they want to achieve those big jobs....'
2. Personal Motivation	✓ Intrinsic	'If your brain can be developed there is nothing that that you cannot do'
	✓ extrinsic	'I prefer that if it happens that I have enough money and I buy that vehicle it.…'
3. Limitations	✓ Impairment	'There are some jobs that I know really I may not be able to pursue'
	✓ Curriculum	'If home science was being taught…..but it was taken away'
4.Barriers	✓ Negative attitude	'You know some see blind people are very unfortunate….'
	✓ Employability	'They think that a blind person may not even be able to use a computer or a calculator and then they may not employ them'
	✓ Vocational centres	'Those who may not be able to work academically they may help themselves'

Emerging Categories		
Category	**Aspects**	**Quotes**
5.Frustrated ambitions	✓ Acquiring skills	'Like now if you told me to cook, I cant….I don't know how… if home science was being taught....'
	✓ Aspired job	'…I wish to be a scientist but I know….I cannot be able to.'
6.Recognition	✓ Personal value	'When you are a big person, now they will honour you because you have money.'
7.Other factors	✓ Public role models	'I admire the jobs because what I see…those people are really successful....'

Appendix 11: Structure and organisation of education and Training in Kenya

Source: Republic of Kenya, 2005a p. 29



Appendix 12: Map of Kenya